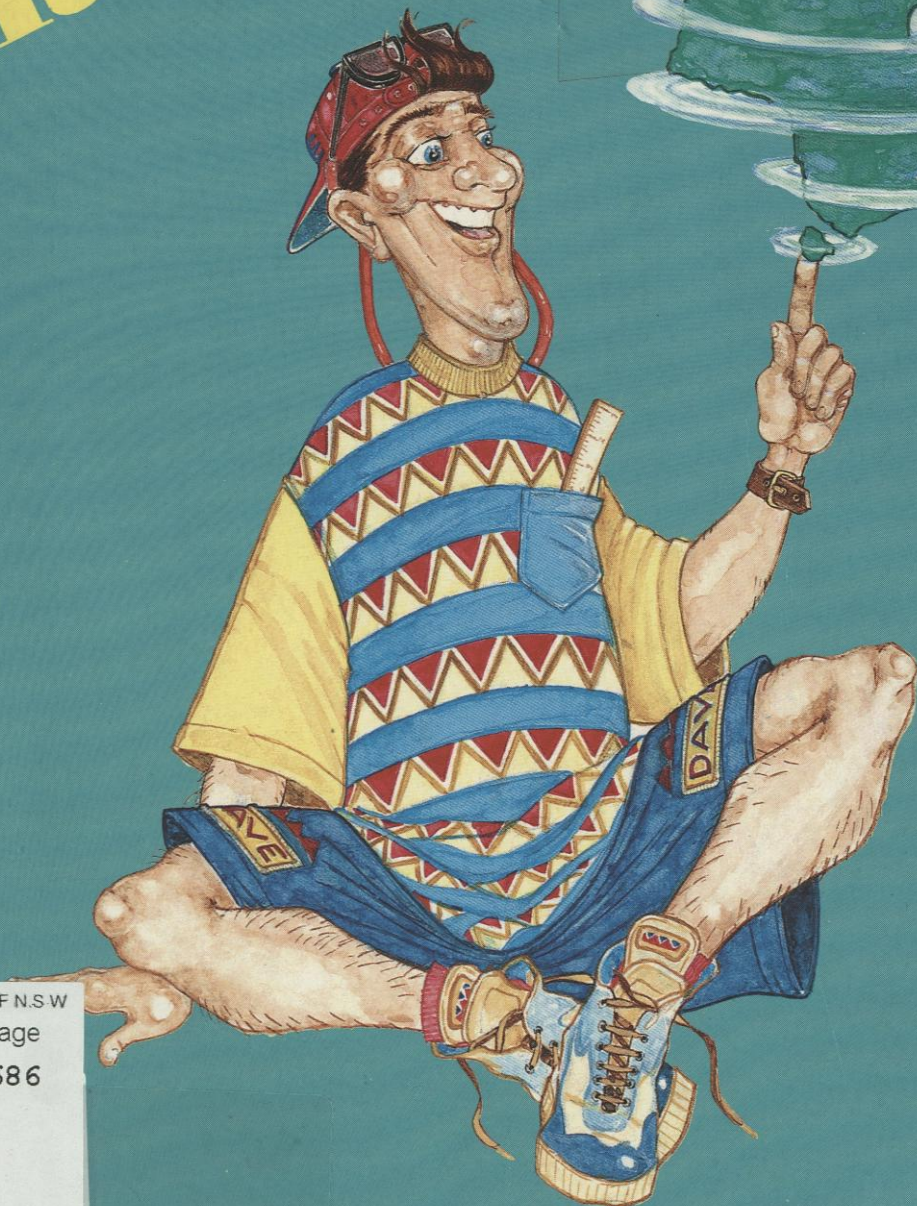


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A Student Guide

1993

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NEW ISSUE

**MEASURING AUSTRALIA'S ECONOMY:
 A Student Guide**

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IAN CASTLES
 Australian Statistician

NEW ISSUE

MEASURING AUSTRALIA'S ECONOMY:
A Student Guide

1993

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IAN CASTLES
Australian Institution

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Australian Bureau of Statistics
 Canberra ACT 2616
 April 1993

PREFACE

The Australian Bureau of Statistics (ABS) has developed *Measuring Australia's Economy: A Student Guide* as a general reference publication and an information resource for anyone wishing to gain an understanding of the key economic indicators used to measure the performance of the economy. It is considered particularly useful for secondary school and tertiary students studying economics.

The *Guide* draws on a wide range of information compiled by the ABS and other organisations and explains, in plain English, the meanings of around fifty key economic indicators. It also provides data in chart and tabular form.

The *Guide* is a further product in the growing suite of resource material designed by the ABS for students. Other major resources include packages of ABS products and topic guides relating to primary and secondary school curricula in each State and Territory (1330.1–1330.7), *Surviving Statistics—A User's Guide to the Basics* (1332.0), *Striking a Balance!* (1314.0) and *Australia—Working it Out!* (1332.2).

During development of the *Guide*, there was wide consultation with tertiary and secondary educators and the Queensland Economics Teachers Association. I thank these and other people for their time and helpful contributions. The assistance of ABS staff in the Canberra and Queensland Offices and people in other organisations who contributed data is also most gratefully acknowledged. The *Guide* was prepared by the Economic Statistics Unit in the Queensland Office of the ABS, headed by Gerry West, under the direction of Ian Marshall. Particular input by Brendan Rynne and Lizel Maas is acknowledged.

I trust that this publication will add to students store of knowledge of sound indicators of the economy and ultimately assist them in the future to make informed decisions; an outcome which is at the heart of the ABS mission.

IAN CASTLES
Australian Statistician

Australian Bureau of Statistics
Canberra ACT 2616
April 1993

HOW TO USE THIS PUBLICATION

Measuring Australia's Economy: A Student Guide has been developed as a general reference publication and information resource for those wishing to gain an understanding of the major economic indicators used to measure the performance of the economy.

It is recommended General Information, on page (vi) and chapter 1 be read before looking at the statistics.

The publication contains economic indicators along with additional information provided to assist the reader's understanding and interpretation of the statistics presented. The economic indicators, consisting of data and explanatory notes for each indicator, are presented in chapter 2. They have been grouped by activity for ease of interpretation. International comparisons have been presented for some key indicators and you will find these in chapter 3.

The additional information that describes presentation conventions and the statistical methods and concepts used to collect, compile and present the data, are presented in chapter 4, *Statistics: Concepts, Sources, Methods and Usage*. This chapter also contains further references to more detailed explanations that may be required. Use the index at the rear of this *Guide* to assist in locating the information required.

Measuring Australia's Economy is an annual publication. Should you wish to access the very latest data or further details of concepts, sources and methods, the source publications are included in the footnotes of each chart and table for reference. Alternatively, publications issued regularly also contain the latest statistics. In particular *Australian National Accounts: National Income, Expenditure and Product* (5206.0) and *Balance of Payments, Australia* (5302.0) would be useful publications to reference. For general reference, use the *ABS Catalogue of Publications and Products* (1101.0) to locate the information you require.

The ABS operates a Library Extension Program which targets research libraries (national, State, tertiary and Parliamentary libraries), Public libraries, special libraries (government and private sector) and school libraries. Libraries that participate in the extension program hold substantial collections of ABS material. The ABS publications mentioned throughout this *Guide*, including those above, could be available in your school, TAFE or university library.

GENERAL INFORMATION

This publication

General inquiries concerning this publication should be addressed to the Manager, Economic Statistics Unit, Brisbane, on (07) 222 6155.

Comments on ways to improve this publication are welcome and should be directed to The Manager, Economic Statistics Unit, GPO Box 9817, Brisbane Qld 4001.

Chart and table contents

The statistics presented are the latest available at 10 December 1992.

The statistics are generally presented in the charts as time series for the last 10 years of monthly or quarterly data. Note that space has been left in each chart for the reader to extend the time series as new data become available.

The tables generally present the last 6 years of annual data along with the latest sub-annual data as follows; if the data series frequency is monthly, data are presented for the last 3 months along with the corresponding 3 months from the previous year; if the frequency is quarterly, data are presented for the last 7 quarters.

Data sources

The tables contain mainly ABS data, although data from non-ABS sources are also included. For ABS data, the name of the source publication and its catalogue number are included in the footnotes of the charts and tables. If the data are from other sources, the source organisation's name is included in the footnotes.

Seasonally adjusted estimates

Data series in this publication include original and seasonally adjusted series. Seasonally adjusted series are clearly labelled. All other series are original series. Care should be taken in interpreting data for the most recent months and quarters. Some of the original and all of the seasonally adjusted series are subject to revision.

The ABS is increasingly placing emphasis on trend series, which are seasonally adjusted data smoothed to diminish the impact of irregular components in the series. Subsequent editions of the guide will include more data in this form.

It is not uncommon for movements in the original time series data to differ from those in seasonally adjusted time series.

Constant price estimates

Constant price estimates in this publication refer to estimates in 1984-85 dollar terms and measure values expressed at the average prices that prevailed that year. At the time of publication of *Measuring Australia's Economy*, ABS constant price estimates were being rebased to 1989-90 dollar terms. Estimates in 1989-90 dollar terms will be included in the next issue of this publication.

Explanatory notes

ABS publications generally contain Explanatory Notes which describe the collection methodology and data items contained therein. Because *Measuring Australia's Economy* contains statistics from numerous sources, collection methodologies and data item descriptions have not been included. Readers are directed to the Explanatory Notes contained in the appropriate ABS publications for such descriptions. Explanatory Notes in *Measuring Australia's Economy* describe each economic indicator.

Further reading

Further reading references for each indicator are generally ABS publications. The ABS uses a catalogue numbering system to describe its publications and products. The catalogue number appears in brackets after each publication, for example, *Balance of Payments, Australia* (5303.0). A description of the catalogue numbering system can be found in the *Catalogue of Publications and Products* (1101.0). The origins of publications not from the ABS are also indicated.

Symbols and other usages

In all tables the following symbols mean:

n.a.	not available
n.y.a.	not yet available
p	preliminary
..	not applicable
0, or 0.0	nil or rounded to zero

Yearly periods shown as, e.g. 1989-90, refer to the fiscal year ended 30 June.

Where figures have been rounded, discrepancies may occur between the sums of the component items and totals.

CHAPTER



1

CHAPTER 1

MEASURING ECONOMIC ACTIVITY

The Australian Bureau of Statistics (ABS) constitutes the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provides statistical services for those Governments. It is the central agency which collects, compiles, analyses and distributes statistics and related information. The ABS has a responsibility to provide information which supports decision making and informs the community generally.

Economic statistics

A large amount of the information collected and published by the ABS records economic activity. This information is collected mainly by surveys and censuses, while some is a by-product of administrative activities, for instance, information about motor vehicles registered is regularly acquired by the ABS from State motor vehicle registration authorities.

The information collected from surveys, censuses and as administrative by-product is put together to form separate measures of activity in the economy. For instance, the turnover of retailers is compiled from a survey conducted by the ABS and the number of people employed is compiled from the ABS labour force survey. These measures are also referred to as economic indicators, which can be thought of as economic variables which change in a predictable way in relation to overall economic activity. Economic analysts use indicators along with other information to help explain why things happen as they do in the economy and then use this knowledge to predict future events.

National accounts

With separate indicators, particular aspects of economic activity can be monitored. Motor vehicle registrations and the turnover of retailers have already been mentioned. Some other separate measures are the profits made by companies, the amount of building activity and the output of manufacturers.

Another important use of this information is as the building blocks of a set of accounts for Australia, called the national accounts. Just as a set of accounts for a business consolidate a lot of information about the business and present it in a set format, national accounts consolidate a range of statistics, from those involving individuals to those involving

the whole nation, into a consistent format which describes the overall economic position of the nation. The accounts also provide details of the contributions of different types of economic activity to the total within a particular period. For example, we can see from the national accounts how much of our national income is derived from exports, or how much of the national production is contributed by the manufacturing sector.

The summary measure of the nation's economic position provided in the national accounts is Gross Domestic Product or GDP. GDP is one of the most important economic indicators. It is defined as the income generated by production taking place within Australia's territory. A more detailed description of national accounts is given in Chapter 4.

This publication provides descriptions and examples of about fifty key economic indicators, some of which form part of the national accounts. Descriptions of basic concepts are included, followed by a comprehensive index. The section How to Use This Publication on page (v) contains a description of the contents and suggestions on how to best use the publication.

1.5

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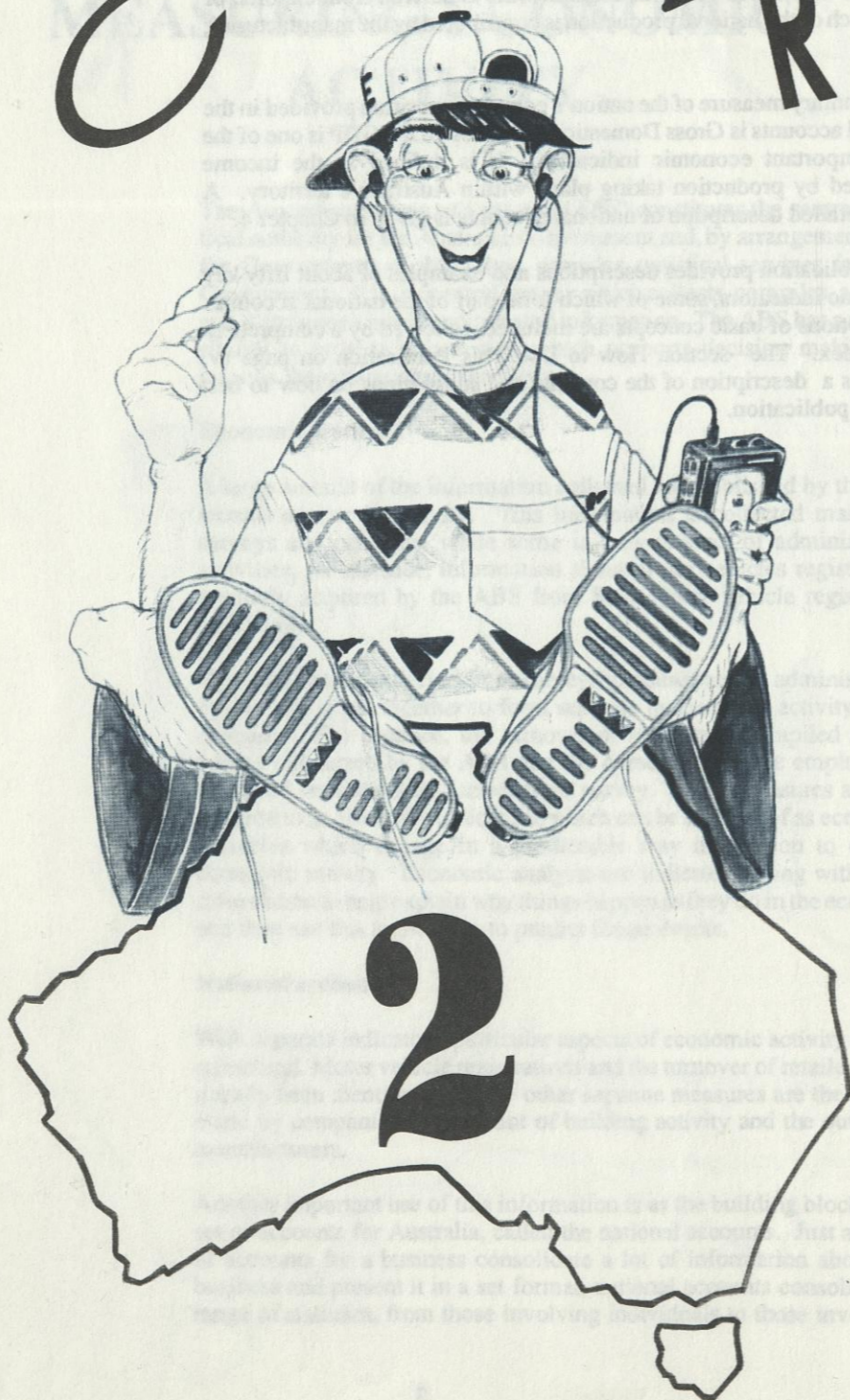
It is possible to get a picture of the Australian economy by looking at the role, economic role and government publications. Communications and other types of these publications allow the Australian economy to be seen through the lens of economic indicators in the context of how they view the Australian economy and social environment.

Analysis of the economy should be based on the economic indicators. A combination of a knowledge of economic indicators and an understanding of the social and political environment will help to assess why the economy has changed over time.

Whenever the economy is analysed, it should be backed up with economic indicators data. Also, when arguments are put forward for policy, care should be taken to ensure they are supported by economic indicators data.

Indicators in this publication can be used to help you to see how the economy has changed over the last 10 years.

CHAPTER



CHAPTER 2

ECONOMIC INDICATORS

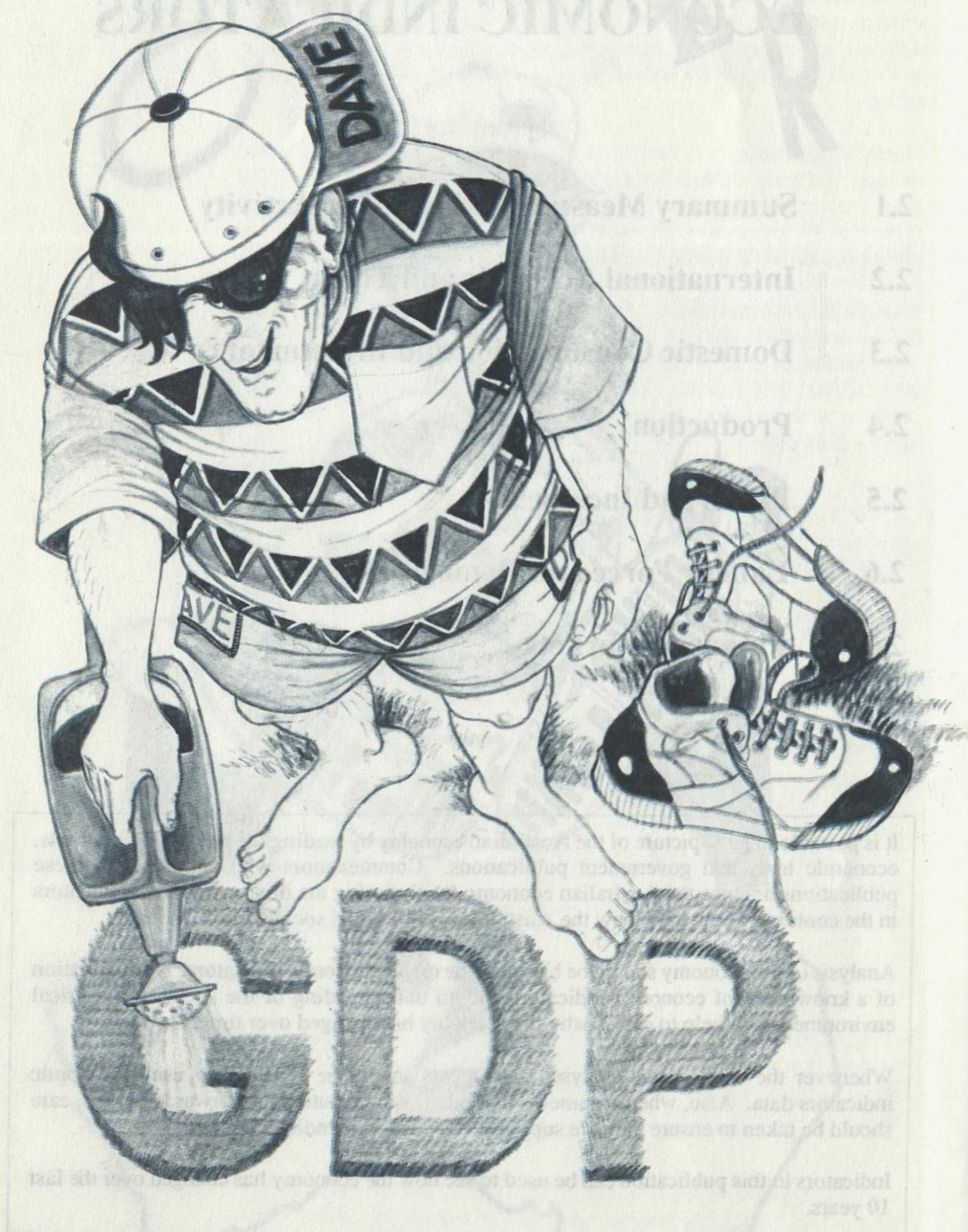
- 2.1 Summary Measures of Economic Activity
- 2.2 International Accounts and Trade
- 2.3 Domestic Consumption and Investment
- 2.4 Production
- 2.5 Prices and Incomes
- 2.6 Labour Force and Demography
- 2.7 Financial Markets

It is possible to get a picture of the Australian economy by reading the newspaper, journals, economic texts and government publications. Commentators who contribute to these publications analyse the Australian economy by observing the major economic indicators in the context of how they view the Australian political and social environment.

Analysis of the economy should be based on the major economic indicators. A combination of a knowledge of economic indicators and an understanding of the social and political environment will help to assess why the economy has changed over time.

Whenever the economy is analysed, arguments should be backed up using economic indicators data. Also, when arguments that other commentators put forward are read, care should be taken to ensure they are supported by economic indicators data.

Indicators in this publication can be used to see how the economy has changed over the last 10 years.

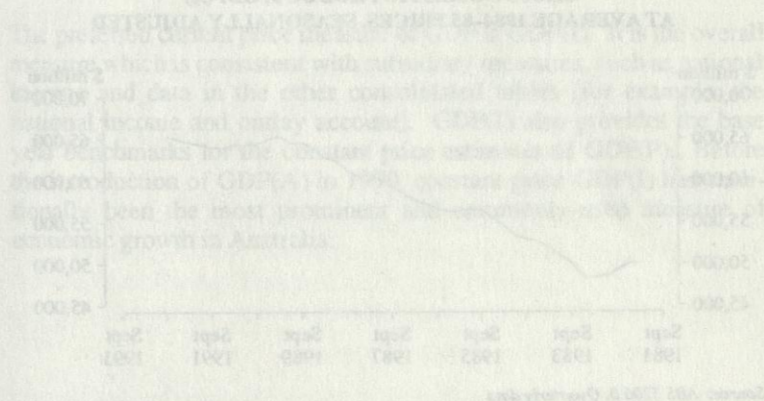


Section 2.1

Summary Measures of Economic Activity

2.1.1 Gross Domestic Product

2.1.2 Government Financial Estimates



SELECTED GROSS PRODUCT AT AVERAGE 1984-85 PRICES (billions)			
	income	expenditure	production
ANNUAL			
1981-82	28,000	28,000	28,000
1982-83	26,000	26,000	26,000
1983-84	27,000	27,000	27,000
1984-85	28,000	28,000	28,000
1985-86	29,000	29,000	29,000
1986-87	30,000	30,000	30,000
1987-88	31,000	31,000	31,000
1988-89	32,000	32,000	32,000
1989-90	33,000	33,000	33,000
1990-91	34,000	34,000	34,000
1991-92	35,000	35,000	35,000
QUARTERLY - SEASONALLY ADJUSTED			
1991-92	8,750	8,750	8,750
1990-91	8,500	8,500	8,500
1989-90	8,250	8,250	8,250
1988-89	8,000	8,000	8,000
1987-88	7,750	7,750	7,750
1986-87	7,500	7,500	7,500
1985-86	7,250	7,250	7,250
1984-85	7,000	7,000	7,000
1983-84	6,750	6,750	6,750
1982-83	6,500	6,500	6,500
1981-82	6,250	6,250	6,250

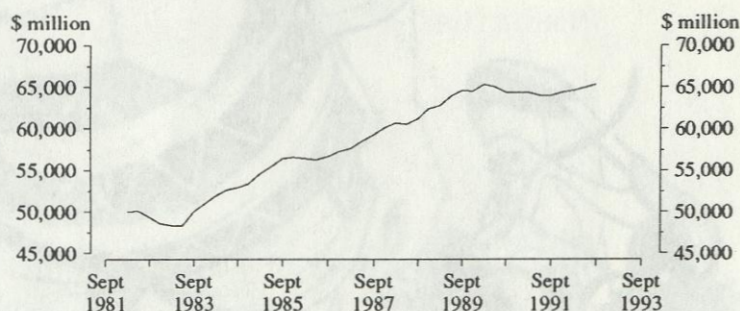
2.1.1

Gross Domestic Product

Comment

Gross Domestic Product, GDP(A) seasonally adjusted at constant prices, has shown modest growth over the 1991-92 financial year. Economic activity in Australia was subdued between the March quarter 1990 and the September quarter 1991, with five quarterly decreases in GDP(A) recorded. The Australian economy displayed growth through most of the 1980s, except in the 1982-83 financial year where negative growth was recorded.

GROSS DOMESTIC PRODUCT, GDP(A)
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 5206.0, Quarterly data

SELECTED GROSS PRODUCT AT AVERAGE 1984-85 PRICES
(\$ million)

Period	GDP(I) income based	GDP(E) expenditure based	GDP(P) production based	GDP(A) average
ANNUAL				
1986-87	230,229	230,806	229,137	230,057
1987-88	240,501	240,182	241,485	240,723
1988-89	250,555	246,780	253,485	250,273
1989-90	257,709	254,922	264,881	259,171
1990-91	256,429	255,196	259,581	257,069
1991-92	256,942	258,150	258,572	257,888
QUARTERLY — SEASONALLY ADJUSTED				
1991—				
March	64,366	64,219	64,546	64,377
June	63,866	63,786	64,391	64,014
September	63,537	64,054	64,318	63,970
December	64,139	64,821	64,126	64,362
1992—				
March	64,629	64,454	64,715	64,599
June	64,855	64,837	65,197	64,963
September	65,079	65,151	65,690	65,307

Source: ABS, Australian National Accounts: National Income, Expenditure and Product (5206.0).

Explanatory Notes

Gross Domestic Product (GDP) is a measure of the value of economic production in Australia in a given period.

Three independent measures of GDP are produced each quarter. They are the sum of goods and services produced at each stage of production less the costs of production, **GDP(P)**; the sum of incomes generated by production, **GDP(I)**; and the sum of final expenditure on goods and services produced, plus exports minus imports, **GDP(E)**. A fourth measure of GDP, calculated as the average of the above three, is referred to as **GDP(A)**.

Analysis has shown that constant price GDP(A) has provided the most satisfactory indicator of short-term seasonally adjusted or trend growth in GDP.

The preferred current price measure of GDP is GDP(I). It is the overall measure which is consistent with subsidiary measures, such as national income and data in the other consolidated tables (for example, the national income and outlay account). GDP(I) also provides the base year benchmarks for the constant price estimates of GDP(P). Before the introduction of GDP(A) in 1990, constant price GDP(I) had traditionally been the most prominent and commonly-used measure of economic growth in Australia.

Further Reading

- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
Contains quarterly data for the last 9 quarters for each of the 4 measures of GDP. See the Feature Article in the June Quarter 1990 issue for information on the relationship between the three GDP measures.

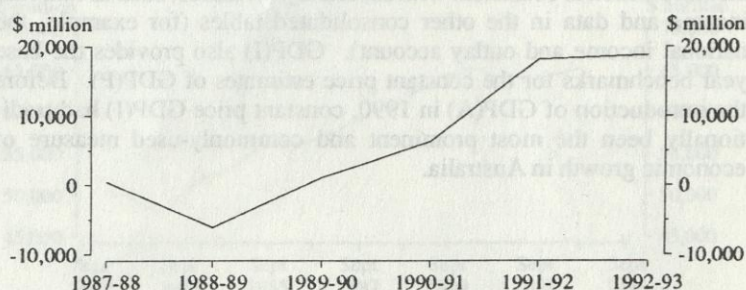
2.1.2

Government Financial Estimates

Comment

The net financing requirement for all levels of government combined is expected to rise from \$18,157m in 1991-92 to \$18,787m in 1992-93, its highest level in the 6 year period from 1987-88 to 1992-93. This continues a deficit position held since combined levels of government last experienced a surplus of \$6,049m in 1988-89.

NET FINANCING REQUIREMENT (a)
COMMONWEALTH, STATE, TERRITORY AND LOCAL GOVERNMENTS



(a) Net financing requirement comprises financing less increase in provisions less net advances received.

Source: ABS, 5501.0, Annual data

ECONOMIC TRANSACTIONS OF
COMMONWEALTH, STATE, TERRITORY AND LOCAL GOVERNMENTS COMBINED
(*\$ million*)

Period	Total outlays	Total revenue	Total financing (a)	Net financing requirement (b)
ANNUAL				
1987-88	116,392	111,545	4,847	468
1988-89	124,012	124,750	-738	-6,049
1989-90	140,408	133,935	6,473	1,151
1990-91	149,634	138,420	11,214	6,361
1991-92p	160,841	137,144	23,697	18,157
1992-93(c)	166,857	141,884	24,974	18,787

(a) Financing is the difference between total outlays and revenue and grants received. (b) Net financing requirement comprises financing less increase in provisions (which equals deficit or surplus) less net advances received. (c) Forward estimate.

Source: ABS, Government Financial Estimates, Australia (5501.0).

Explanatory Notes

Government financial estimates provide forecasts of outlays and revenue for the current financial year (the budget year) and estimates of actual expenditure and revenue for the past 5 years. The estimates cover both government activity mainly funded from taxation (called general government) and government enterprises providing goods and services for the market (public trading enterprises).

The estimates are compiled from Commonwealth and State government budgets which are presented usually in August and September each year, and from estimates supplied by individual authorities not funded directly from the budget (e.g. electricity authorities, public transport authorities, statutory authorities and local government authorities).

Government finance statistics can be used to monitor fiscal policy. When government increases its spending, for example when it increases pensions and benefits paid to households, there is a tendency for aggregate demand to rise. A similar effect can be obtained by reducing taxation so that more money remains in the hands of private consumers. Conversely, government can reduce expenditure or increase taxes in an attempt to reduce demand.

The difference between government outlays and revenue is measured by the Net Financing Requirement (NFR) which affects government debt. A positive NFR means the government must borrow money to finance its activities. This increases debt. If revenue exceeds outlays, the NFR is negative and the government can use the surplus to reduce debt.

The actual size of the NFR often differs from the initial forecast. Any changes in the state of the economy affect government outlays and revenue. During a fall in economic activity, tax revenue falls while outlays on welfare increase. As the economy picks up, outlays on welfare fall and tax revenue rises. This process is most marked at the Commonwealth government level.

Further Reading

- ☐ *Government Financial Estimates, Australia* (5501.0)
Contains outlays, revenue and financing transactions for all levels of government covering the forward (or budget) year and the previous 6 years.
- ☐ *Public Sector Debt, Australia* (5513.0)
Contains annual statistics on the financial assets and liabilities of the Australian non-financial public sector.
- ☐ *Government Finance Statistics, Australia* (5512.0)
Provides annual details of the consolidated financial transactions of the non-financial public sector for all levels of government.



- ☐ Public Sector Debt Australia (2513.0)
Contains annual statistics on the financial assets and liabilities of the Australian non-financial public sector.
- ☐ Government Finance Statistics Australia (2515.0)
Provides annual details of the consolidated financial transactions of the non-financial public sector for all levels of government.

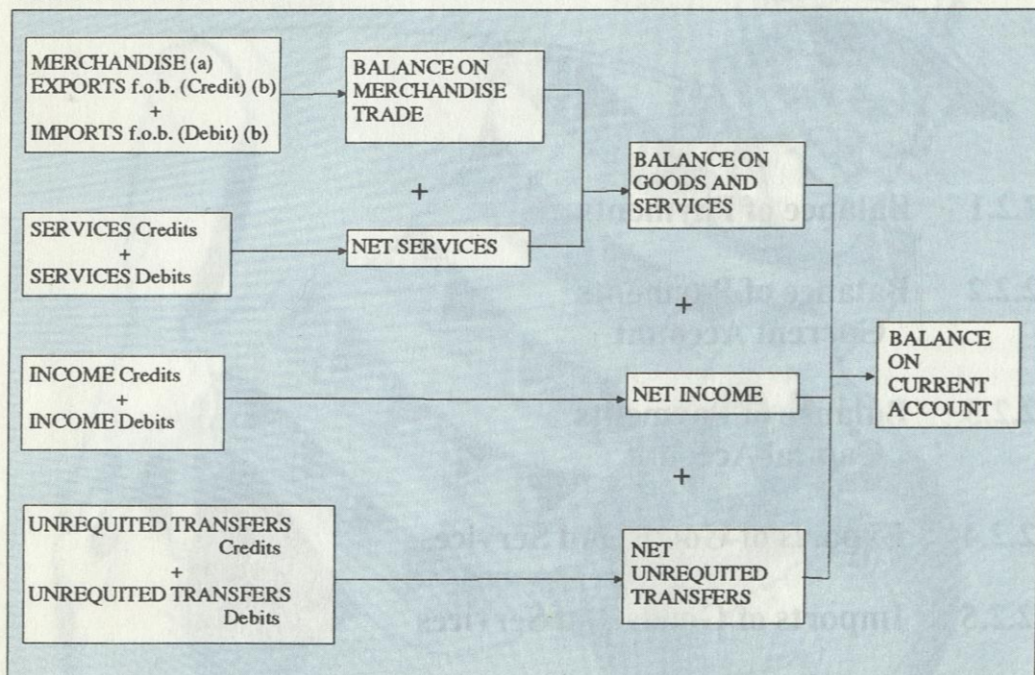
Section 2.2

International Accounts and Trade

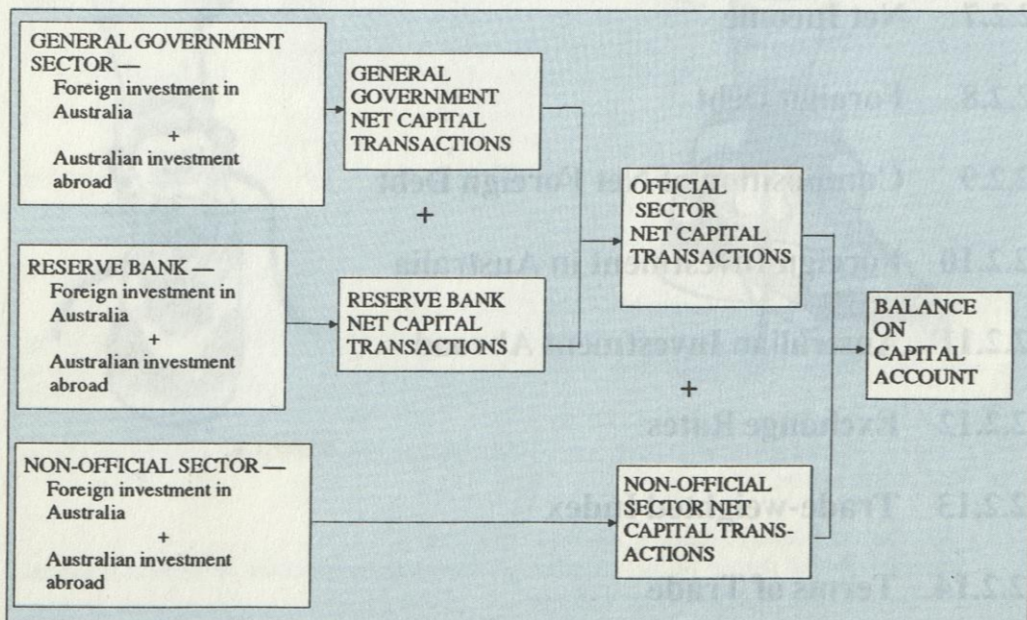
- 2.2.1 Balance of Payments
- 2.2.2 Balance of Payments
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- 2.2.3 Balance of Payments
Capital Account
- 2.2.4 Exports of Goods and Services
- 2.2.5 Imports of Goods and Services
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- 2.2.7 Net Income
- 2.2.8 Foreign Debt
- 2.2.9 Composition of Net Foreign Debt
- 2.2.10 Foreign Investment in Australia
- 2.2.11 Australian Investment Abroad
- 2.2.12 Exchange Rates
- 2.2.13 Trade-weighted Index
- 2.2.14 Terms of Trade

2.2.1 Balance of Payments

CURRENT ACCOUNT



CAPITAL ACCOUNT



(a) Balance of Payments basis. (b) Merchandise is valued at the point of free on board (f.o.b.) at the customs frontier of the exporting country.

Explanatory Notes

Two broad accounts make up the balance of payments, namely the current account and the capital account, but first a word about the balance of payments itself.

Despite its name, the balance of payments is a record of Australia's economic transactions with the rest of the world, many of which do not involve simultaneous payment (such as credit sales) and some of which involve no payment at all (such as goods provided under foreign aid programs). All these transactions, which usually involve dealings between an Australian resident and a non-resident, are entered in a set of double entry accounts which make up the balance of payments. It is the use of the double entry system that enables *balances* to be derived, but the balance of payments cannot be summarised in just a single balance.

The *current account* comprises transactions in goods, services, income and unrequited transfers. Unrequited transfers are offset entries to transactions where ownership of an item changes without payment, or expectation of payment. For example, an incoming migrant might bring in foreign exchange; the offsetting entry is an unrequited transfer.

The *capital account* comprises transactions in Australia's foreign financial assets and liabilities, such as foreign borrowing and lending by Australian residents, equity investments and purchases and sales of official reserve assets.

In principle, the deficit (or surplus) on the current account should be matched by a surplus (or deficit) on the capital account. In practice, this is not the case. The balances on the capital account and the current account are reconciled by the *balancing item*. This is the sum of net errors (transactions not measured accurately) and net omissions (transactions not measured at all).

Further Reading

- ☐ *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)
Provides a comprehensive description of the concepts and structure of the Australian balance of payments and of the data sources and methods used to compile the statistics contained in Australian balance of payments publications.
- ☐ *Balance of Payments, Australia* (5301.0)
Includes monthly data on imports of goods and services, including trend and seasonally adjusted series.
- ☐ *Balance of Payments, Australia* (5302.0)
Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account.
- ☐ *Balance of Payments, Australia* (5303.0)
Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1990-91 publication for balance of payments ratios and for international comparisons of balance of payments statistics.

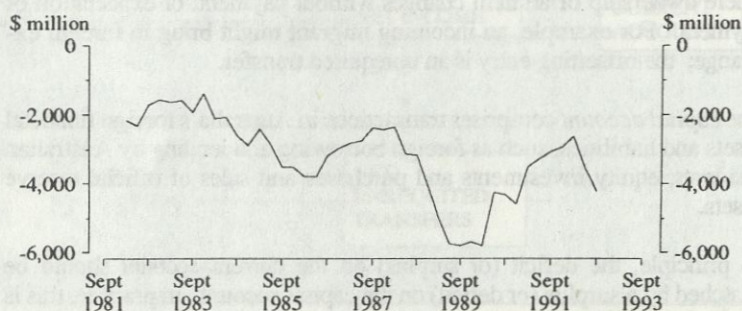
2.2.2

Balance of Payments Current Account

Comment

In seasonally adjusted terms, Australia's current account deficit has deteriorated rapidly in the June and September quarters of 1992, after reaching its lowest level in the March quarter of 1992 since the March quarter of 1988. The lowest level previously reached was the December quarter of 1983 whilst the largest current account deficit occurred in the March quarter of 1990.

BALANCE ON CURRENT ACCOUNT
SEASONALLY ADJUSTED



Source: ABS 5302.0, Quarterly data

BALANCE OF PAYMENTS, CURRENT ACCOUNT
(\$ million)

Period	Balance on current account
ANNUAL	
1986-87	-11,749
1987-88	-10,238
1988-89	-17,566
1989-90	-21,581
1990-91	-15,629
1991-92	-12,071
QUARTERLY — SEASONALLY ADJUSTED	
1991—	
March	-3,503
June	-3,268
September	-3,062
December	-2,921
1992—	
March	-2,625
June	-3,534
September	-4,213

Source: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

The balance on current account is the sum of the balances on merchandise trade, services trade, income and unrequited transfers. The balances are derived by calculating the difference of credit entries, which are shown without sign, and debit entries, which have a negative sign. If the sum of the balances is negative, a nation has a current account deficit, while if the figure is positive, a nation has a current account surplus.

The balance on current account consists of:

- Balance on goods and services: the difference between the total export value and the total import value of goods and services. It should be noted that within the balance on goods and services there is a net services balance and a merchandise trade balance which provides an analytically useful division between services and goods;
- Net income: the difference between the value of income, such as dividends and interest earned by residents from non-residents (credits) and that payable by residents to non-residents;
- Net unrequited transfers: the difference between unrequited transfer credits and debits. An unrequited transfer is needed when real or financial resources are provided without something of economic value being received in return. For example, Australia's foreign aid abroad requires a debit entry while an immigrant who brings foreign exchange to Australia adds a credit entry to unrequited transfers.

Australia has had a current account deficit since the mid 1970s. This indicates that the nation as a whole has been consuming and investing more than the available national income and savings levels. To fund this shortfall, Australia has had to acquire finance from non-residents. These capital inflows are measured in the capital account of the balance of payments. The net capital inflow (inflows less outflows) in a period is in principle equal and offsetting to the deficit on the current account of the balance of payments in that period.

The continued capital account surpluses have contributed to Australia's net foreign debt. The economic significance of this debt is hotly debated but, interestingly, the interest repayments on it are the major cause of Australia's large net income deficit which, in turn, plays an important role in Australia's current account deficit problems.

Further Reading

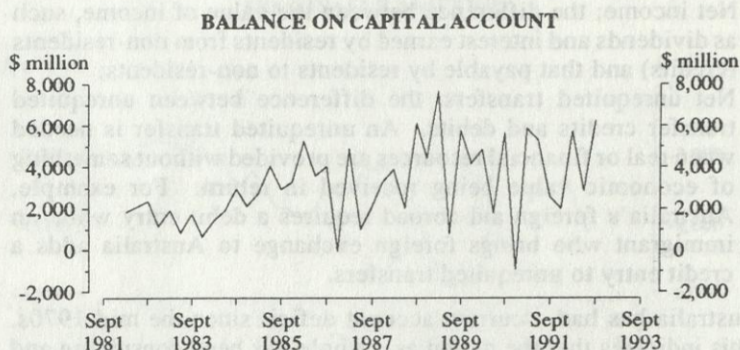
- ☐ *Balance of payments, Australia (5302.0)*
Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account.
- ☐ *Balance of Payments, Australia (5303.0)*
Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1990-91 publication for balance of payments ratios and for international comparisons of balance of payments statistics.

2.2.3

Balance of Payments Capital Account

Comment

The balance on the capital account changes quite markedly from quarter to quarter. The balance on the capital account usually records a surplus. The exceptions to this were the December quarters of 1986 and 1990.



Source: ABS 5302.0, Quarterly data

BALANCE OF PAYMENTS, CAPITAL ACCOUNT
(\$ million)

Period	Balance on capital account
ANNUAL	
1986-87	9,970
1987-88	11,328
1988-89	19,092
1989-90	16,637
1990-91	15,901
1991-92	13,203
QUARTERLY	
1991—	
March	5,870
June	5,288
September	2,575
December	2,025
1992—	
March	5,749
June	2,855
September	6,254

Source: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

The capital account provides information on transactions in Australia's foreign financial assets and liabilities, such as foreign borrowing and lending by Australian residents, equity investments and purchases and sales of official reserve assets.

The flows covered by the account are grouped into two major categories:

- official capital, that is, transactions involving State and Commonwealth governments and the Reserve Bank; and
- non-official capital, that is, transactions involving financial enterprises, non-financial trading enterprises and households. Government-owned financial and trading enterprises, such as the Commonwealth Bank and Telecom are included in the non-official sector.

Credit entries in the capital account are net inflows, resulting from a reduction in Australian investment abroad and/or an increase in foreign investment in Australia. Debit entries are net outflows and reflect the reverse situation. Like the current account, credit entries are shown without sign while debit entries take a negative sign.

A positive capital account balance (a net inflow) occurs when the increase in Australia's liabilities to foreign countries (or the reduction in claims on foreign countries) in a period exceeds the increase in Australia's claims on foreign countries (or the reduction in liabilities to foreign countries).

Such a net inflow of capital occurs when a country has a current account deficit. In other words, to finance this deficit, it draws on savings from the rest of the world.

A negative capital account balance (a net outflow) occurs when the increase in Australia's claims on foreign countries (or the reduction in liabilities to foreign countries) in a period exceeds the increase in its liabilities to foreign countries (or the reduction in claims on foreign countries).

Such a net outflow of capital occurs when a nation has a current account surplus. In other words, the net outflow for nations with such a surplus represents the extent to which they provide their domestic savings to the rest of the world.

Further Reading

- ☐ *Balance of Payments, Australia* (5302.0)
Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account.
- ☐ *Balance of Payments, Australia* (5303.0)
Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1990-91 publication for balance of payments ratios and for international comparisons of balance of payments statistics.

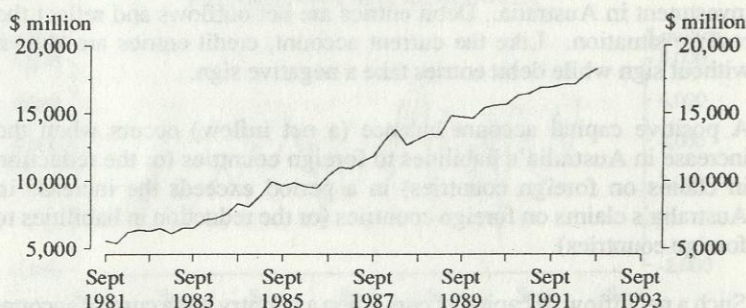
2.2.4

Exports of Goods and Services

Comment

In seasonally adjusted terms, Australia's total exports of goods and services generally increased steadily over the period between September 1981 and September 1992, growing around 10 per cent per year on average. Periods which greatly exceeded the average rate of growth, such as the six months to June 1985, the six months to March 1988 and the June quarter of 1989, were followed by periods of declining export levels.

**TOTAL EXPORTS OF GOODS AND SERVICES
SEASONALLY ADJUSTED**



Source: ABS 5302.0, Quarterly data

**EXPORTS OF GOODS AND SERVICES
(\$ million)**

Period	Merchandise exports f.o.b. (a) rural	Merchandise exports f.o.b. (a) non-rural	Merchandise exports f.o.b. (a) total	Services credits	Total
ANNUAL					
1986-87	13,194	22,844	36,038	7,756	43,794
1987-88	15,341	26,174	41,515	9,786	51,301
1988-89	16,069	27,825	43,894	10,999	54,893
1989-90	15,344	33,220	48,564	11,760	60,324
1990-91	14,022	38,133	52,155	13,224	65,379
1991-92	15,596	39,334	54,930	14,135	69,065
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	3,251	9,871	13,122	3,350	16,472
June	3,760	9,760	13,520	3,382	16,902
September	3,905	9,688	13,593	3,372	16,965
December	3,895	9,778	13,673	3,479	17,152
1992—					
March	3,853	9,711	13,564	3,574	17,138
June	3,931	10,245	14,176	3,703	17,879
September	4,041	10,483	14,524	3,752	18,276

(a) Balance of payments basis.

Source: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

Exports are goods and services that are provided to foreign residents. In the balance of payments they appear as a credit item on the current account and are presented separately to assist analysis.

In balance of payments publications, goods are categorised as merchandise exports and classified into rural and non-rural exports. Within each of these classifications a further, more specific break-up is published so that the trading performance of different commodity groups can be monitored. The term merchandise exports refers to all movable goods which change ownership from residents to non-residents. These are valued in f.o.b. (free on board) terms which means that transportation and insurance costs are excluded.

Exports of services are services provided by Australian residents to non-residents. These are shown in the balance of payments as services credits and categorised into groups such as shipment, other transportation, travel, and other services.

Exports are important because they are an added source of income for domestic producers and because they provide the foreign exchange needed to pay for imports. Export levels are dependent on the demand for Australian products and services in the world market and on the price charged for those goods and services. This price can alter if there are fluctuations in the exchange rate of the Australian Dollar. If the Australian Dollar depreciates (falls in value), Australian exports will generally become cheaper for foreign residents and consequently they may demand more Australian goods and services. Alternatively, if the Australian Dollar appreciates (rises in value), Australian exports will generally become more expensive for foreign residents and they may demand less of our goods and services as a result.

Further Reading

- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports (5410.0)*
Contains annual data for the latest 3 years covering exports of goods cross-classified by country and broad commodity grouping.
- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports by Country (5422.0)*
Provides quarterly information on the value of exports of goods with selected countries and country groups classified by commodity. See the feature article in the June 1991 publication for information on Australia's merchandise trade with selected Asian countries and March 1991 for information on the recording of merchandise exports and the impact EXIT System.
- ☐ *Foreign Trade, Australia: Merchandise Exports (5424.0)*
Contains yearly quantity and value merchandise export statistics of selected major commodities, by State, industry of origin and country, for the latest 6 years.
- ☐ *Foreign Trade, Australia: Merchandise Exports (5432.0)*
Contains monthly quantity and value of merchandise exports of selected major commodities to selected countries, value of exports classified by broad commodity group, State, industry of origin, Broad Economic Category and country.

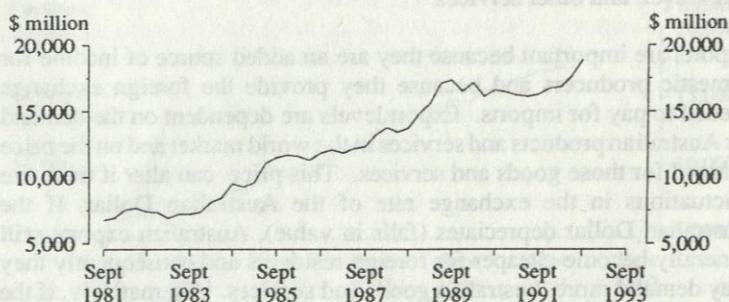
2.2.5

Imports of Goods and Services

Comment

In seasonally adjusted terms, total imports of goods and services generally rose steadily over the period between the June quarter 1983 and the September quarter 1989, with the strongest surge taking place after the June quarter 1988. From the September quarter 1989, imports were volatile but generally declined until the June quarter 1991, when they again started to increase.

**TOTAL IMPORTS OF GOODS AND SERVICES
SEASONALLY ADJUSTED**



Source: ABS 5302.0, Quarterly data

**IMPORTS OF GOODS AND SERVICES
(\$ million)**

Period	Merchandise imports f.o.b.	Services debits	Total
ANNUAL			
1986-87	37,159	10,858	48,017
1987-88	40,386	12,313	52,699
1988-89	47,032	14,070	61,102
1989-90	50,991	16,195	67,186
1990-91	49,256	16,266	65,522
1991-92	51,054	16,317	67,371
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	12,276	3,951	16,227
June	12,149	3,995	16,144
September	12,305	3,954	16,259
December	12,662	4,101	16,763
1992—			
March	12,748	4,085	16,833
June	13,437	4,216	17,653
September	14,511	4,429	18,940

Source: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

Imports are goods and services that are acquired from foreign residents. Other things being equal, an increase in imports will increase a current account deficit or reduce a current account surplus.

In balance of payments publications, imports of goods are referred to as merchandise imports, and include all movable goods that change ownership from non-residents to residents. These imports are valued in f.o.b. (free on board) terms, which excludes the transportation and insurance costs (considered to be services) of bringing the goods to Australia. Merchandise imports are classified into broad commodity groups such as food, chemicals, textiles, metals and metal manufactures, machinery, transport equipment, other manufactures, and other imports.

Imports of services are services provided by non-residents to Australian residents. These are shown in the balance of payments as services debits and categorised into groups such as shipment, other transportation, travel, and other services.

Further Reading

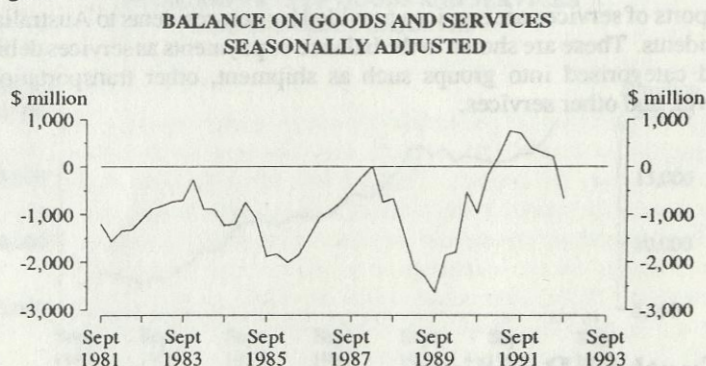
- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports (5410.0)*
Contains annual data for the latest 3 years covering imports cross-classified by country and broad commodity grouping.
- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports by Country (5422.0)*
Provides quarterly information on the value of imports with selected countries and country groups classified by commodity. See the feature article in the June 1991 issue for information on Australia's merchandise trade with selected Asian countries.
- ☐ *Foreign Trade, Australia: Merchandise Imports (5426.0)*
Contains detailed merchandise imports information for the latest 3 years, including imports by major commodities, imports by industry of origin and imports by country and State.
- ☐ *Foreign Trade, Australia: Merchandise Imports (5433.0)*
Contains monthly merchandise imports of selected major commodities from selected countries, imports classified by broad commodity grouping, State, industry of origin, Broad Economic Category and country.

2.2.6

Balance on Goods and Services

Comment

In seasonally adjusted terms, Australia's balance on goods and services has shown a great deal of volatility in the eleven year period shown on the graph below. For most of this period Australia has recorded a deficit, indicating that imports of goods and services have exceeded exports of goods and services. A strong improvement was recorded after the September quarter of 1989 and this culminated in a surplus of \$758m in the June quarter of 1991. Since then, the position has again reversed and in the September quarter of 1992 there was a deficit on the balance of goods and services of \$664m.



Source: ABS 5302.0, Quarterly data

**BALANCE ON GOODS AND SERVICES
(\$ million)**

Period	Balance on merchandise trade	Net services	Balance on goods and services
ANNUAL			
1986-87	-1,121	-3,102	-4,223
1987-88	1,129	-2,527	-1,398
1988-89	-3,138	-3,071	-6,209
1989-90	-2,427	-4,435	-6,862
1990-91	2,899	-3,042	-143
1991-92	3,876	-2,182	1,694
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	846	-601	245
June	1,371	-613	758
September	1,288	-582	706
December	1,011	-622	389
1992—			
March	816	-511	305
June	739	-513	226
September	13	-677	-664

Source: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

The balance on goods and services refers to the net sum of exports and imports of goods and services. It is a useful and immediate indicator of a nation's overall trading position and appears in the current account section of the balance of payments.

A net debit (–) figure is referred to as a goods and services deficit and indicates that total imports of goods and services exceed total exports of goods and services. A surplus on the balance of goods and services appears as a credit item and indicates that total exports of goods and services exceed total imports of goods and services.

Within the balance on goods and services two other balances are presented, reflecting the division between goods and services.

Net services is the net sum of services credits (exports) and debits (imports) and identifies the extent of any surplus (+) or deficit (–) in the trade of services.

The *balance on merchandise trade* is the net sum of merchandise exports and merchandise imports. A merchandise trade surplus indicates that exports of merchandise exceeded imports of merchandise in the reference period and is shown as a credit in the balance of payments. A trade deficit is shown as a debit (–) and means that merchandise imports have exceeded merchandise exports.

Further Reading

- ☐ *Balance of Payments, Australia* (5302.0)
Presents detailed quarterly data on the balance on goods and services.
- ☐ *Balance of Payments, Australia* (5303.0)
Presents detailed yearly data on the balance on goods and services.
- ☐ *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)
Provides a comprehensive description of the concepts and structure of the Australian balance of payments, including the data sources and methods used to compile the goods and services statistics, as shown in Australian balance of payments publications.

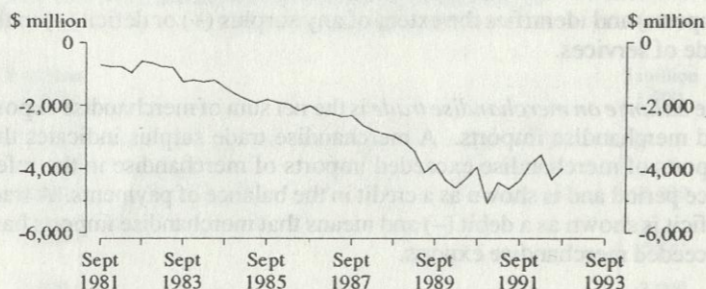
2.2.7

Net Income

Comment

Over the 8 year period to June quarter 1989, the seasonally adjusted net income deficit deteriorated from a low of \$704 million in September quarter 1981 to \$4101 million in June quarter 1989. The average annual growth in the net income deficit over this period was 25 per cent. Since the June quarter of 1989, the net income deficit has been extremely volatile and in the September quarter of 1992 stood at \$3980m.

NET INCOME
SEASONALLY ADJUSTED



Source: ABS 5302.0, Quarterly data

NET INCOME
(per cent)

Period	Income credits	Income debits	Net income
ANNUAL			
1986-87	3,076	-11,815	-8,739
1987-88	4,033	-14,537	-10,504
1988-89	4,313	-17,868	-13,555
1989-90	4,581	-21,646	-17,065
1990-91	3,933	-21,905	-17,972
1991-92	3,979	-20,033	-16,054
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	896	-5,309	-4,413
June	1,004	-5,628	-4,624
September	960	-5,320	-4,360
December	1,005	-4,834	-3,829
1992—			
March	1,214	-4,762	-3,548
June	856	-5,176	-4,320
September	1,034	-5,014	-3,980

Sources: ABS, Balance of Payments, Australia (5302.0).

Explanatory Notes

The *income* item of the Balance of Payments covers income earned by Australian residents from non-residents (credits) and income earned by non-residents from Australian residents (debits). In broad terms, income relates to the return to the owner of a resource from the use of that resource by either the owner or another economic entity.

In the balance of payments current account, income is divided into three categories: investment income, other property income, and labour and other income.

Investment income refers to the earnings by owners of financial assets and commonly includes such items as dividends and interest. Earnings received by Australian residents from the ownership of foreign financial assets are shown as credits and the earnings received by non-residents from their ownership of Australian financial assets are shown as debits.

Other property income refers to the earnings by owners of intangible assets (i.e. patents, film rights, trademarks) or what is usually termed royalties. Royalties payable by residents to non-residents are debits and royalties received by residents from non-residents are credits.

Labour income refers to wages and salaries earned by residents from non-resident employers (credits) or wages and salaries earned by non-residents from resident employers (debits). Other income includes items such as extraordinary insurance claims.

The sum of the income debits with the income credits gives net income. Where income debits exceed income credits, a net income deficit occurs and where income credits exceed income debits, a net income surplus occurs. Australia has traditionally shown a net income deficit, mainly due to interest payments to non-residents to service our foreign debt.

Further Reading

- ☐ *Balance of payments, Australia (5302.0)*
Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account.
- ☐ *Balance of Payments, Australia (5303.0)*
Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years.
- ☐ *Balance of Payments, Australia: Concepts, Sources and Methods (5331.0)*
Provides a comprehensive description of the concepts and structure of the Australian balance of payments, including the data sources and methods used to compile the income statistics as shown in Australian balance of payments publications.

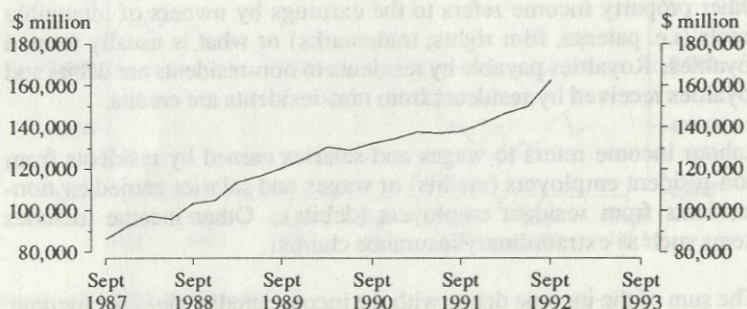
2.2.8

Foreign Debt

Comment

Australia's net foreign debt has been rising steadily throughout the 1980s and early 1990s. The difference between gross and net debt has increased steadily over this period. The main component of this difference is official reserve assets, although Australian financial enterprises have been lending more abroad in recent years.

NET FOREIGN DEBT
AT END OF PERIOD



Source: ABS 5306.0, Quarterly data

LEVELS OF FOREIGN DEBT AT END OF PERIOD AND SELECTED RATIOS

Period	Total gross debt (a) (\$m)	Reserve assets (\$m)	Lending abroad (\$m)	Net foreign debt (a) (b) (\$m)	Ratio of net foreign debt to GDP (I) (c) (%)	Ratio of net interest payable to exports of goods and services (d) (%)
ANNUAL						
1986-87	n.a.	n.a.	n.a.	n.a.	32.6	16.5
1987-88	122,398	20,182	6,224	95,991	32.2	15.2
1988-89	145,701	20,410	8,690	116,601	34.3	17.5
1989-90	159,601	21,871	8,500	129,229	35.0	20.8
1990-91	172,950	24,047	11,693	137,210	36.3	19.6
1991-92	187,081	22,240	14,902	149,939	39.0	16.5
QUARTERLY						
1991—						
March	170,763	23,593	9,550	137,620	36.4	20.1
June	172,950	24,047	11,693	137,210	36.3	19.6
September	172,013	23,836	10,145	138,031	36.5	19.1
December	179,314	25,451	11,782	142,080	37.5	18.2
1992—						
March	180,267	21,314	12,231	146,721	38.4	17.2
June	187,081	22,240	14,902	149,939	39.0	16.5
September	201,024	21,566	16,618	162,841	42.0	15.4

(a) As a result of a change in the methodology used to value non-equity securities on foreign capital markets, levels from December quarter 1991 are not strictly comparable with levels from earlier periods. (b) Equals total gross debt less reserve assets and lending abroad. (c) Ratio derived by expressing net foreign liabilities at a particular date as a percentage of GDP for the year preceding this date. (d) Ratio derived by expressing net investment income payable as a percentage of exports of goods and services for the year preceding this date.

Source: ABS, *International Investment Position, Australia* (5306.0).

Explanatory Notes

Foreign debt is the amount borrowed from non-residents by residents of a country. It is distinguished from other components of international investment by the obligation to pay interest and/or repay principal. Components of Australia's international investment position excluded from foreign debt are equity investment, accounts payable or receivable and prepayments made or received.

Gross foreign debt is the total amount borrowed from non-residents. Net foreign debt is equal to gross foreign debt minus official reserve assets and lending by residents of Australia to non-residents.

The level of debt is often expressed as a percentage of the national accounting measure of domestic production, Gross Domestic Product (GDP). This is done to place the extent of foreign debt in context and to enable valid comparisons over time and between countries. Movements in this ratio indicate the changing significance of foreign debt.

An economy's capacity to pay the costs associated with debt are portrayed by its debt service ratio. The debt service ratio shows the percentage of export earnings being used to meet interest payments on debt. The higher the proportion of export earnings used to service the debt, the lesser the economy's capacity to pay.

The level of foreign debt is important due to its effect on the Balance of Payments. Interest payments on debt owing to non-residents add directly to the current account deficit.

Further Reading

- ☐ *International Investment Position, Australia* (5306.0)
Contains quarterly detailed analysis of Australia's gross and net foreign debt position by sector. See the feature article in the June 1988 issue for explanation of foreign debt ratios.
- ☐ *International Investment Position, Australia* (5305.0)
Contains comprehensive annual data on Australia's gross and net foreign debt position by sector.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

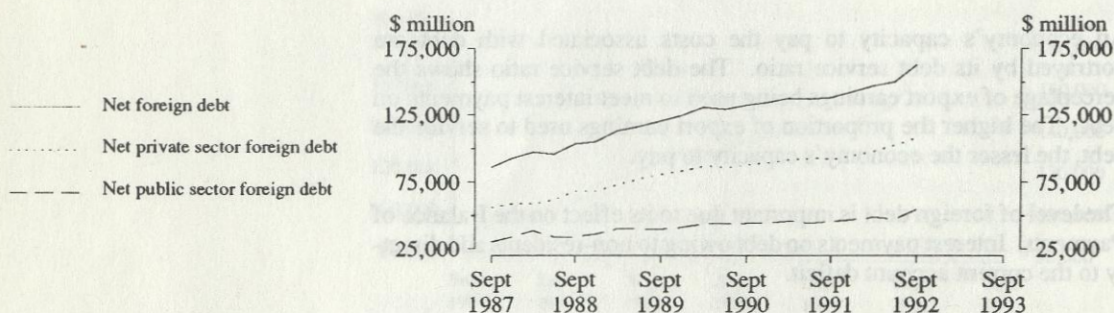
2.2.9

Composition of Net Foreign Debt

Comment

Net foreign debt has been increasing steadily. Private sector net foreign debt is the major component of net foreign debt. Both private and public sector net debt have increased over the past 5 years. Net public sector debt has grown more slowly than private sector debt. At 30 September 1987, net public sector debt comprised 35.0 per cent of net foreign debt. By 30 September 1992, net public sector debt comprised 33.6 per cent of net foreign debt.

LEVELS OF NET FOREIGN DEBT AT END OF PERIOD



LEVELS OF NET FOREIGN DEBT AT END OF PERIOD
(\$ million)

Period	Public sector debt (a)	Private sector debt	Total
ANNUAL			
1987-88	34,155	61,836	95,991
1988-89	39,475	77,127	116,601
1989-90	43,844	85,385	129,229
1990-91	44,426	92,784	137,210
1991-92	47,584	102,355	149,939
QUARTERLY			
1991—			
March	45,681	91,939	137,620
June	44,426	92,784	137,210
September	46,022	92,010	138,031
December	47,000	95,080	142,080
1992—			
March	48,991	97,731	146,721
June	47,584	102,355	149,939
September	54,794	108,047	162,841

(a) Official plus non-official public sector debt.

Source: ABS, International Investment Position, Australia (5306.0).

Explanatory Notes

Australia's net foreign debt consists of debt incurred by the private sector and by the public sector.

Net public sector debt includes the debt of Commonwealth, State and Local governments (which is termed official sector debt), and government business enterprises (which is termed non-official public sector debt) after deduction of official reserve assets and lending abroad by these resident entities.

The official sector debt makes up a relatively small share of Australia's net foreign debt. The largest share of net foreign debt is owed by the private sector and is the result of foreign borrowing by firms or individuals substantially exceeding their lending abroad.

The composition of foreign debt may also be examined by industry, country, currency and maturity structure.

Further Reading

- ☐ *International Investment Position, Australia (5306.0)*
Contains quarterly detailed analysis of Australia's gross and net foreign debt position. See the feature article in the June 1988 issue for explanation of foreign debt ratios.
- ☐ *International Investment Position, Australia (5305.0)*
Contains comprehensive annual data on Australia's gross and net foreign debt position.

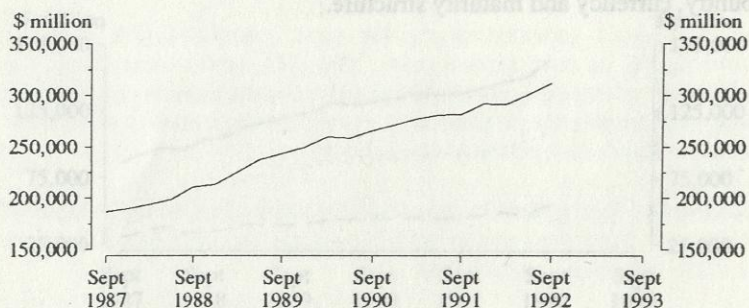
2.2.10

Foreign Investment in Australia

Comment

The level of foreign investment in Australia showed steady growth, increasing by 60 per cent between the end of September 1987 and the end of September 1992.

LEVEL OF FOREIGN INVESTMENT IN AUSTRALIA
AT END OF PERIOD — TOTAL



Source: ABS 5306.0. Quarterly data

LEVEL OF FOREIGN INVESTMENT IN AUSTRALIA AT END OF PERIOD
(\$ million)

Period	Equity	Borrowing (a)	Other	Total
ANNUAL				
1987-88	69,278	122,398	7,489	199,164
1988-89	84,776	145,701	7,254	237,732
1989-90	93,416	159,601	5,517	258,534
1990-91	101,895	172,950	5,979	280,824
1991-92	107,648	187,081	5,929	300,659
QUARTERLY				
1991—				
March	100,305	170,763	6,286	277,354
June	101,895	172,950	5,979	280,824
September	103,086	172,013	6,644	281,742
December	105,439	179,314	7,025	291,778
1992—				
March	104,933	180,267	6,284	291,484
June	107,648	187,081	5,929	300,659
September	104,717	201,024	5,979	311,721

(a) Levels of borrowing from the end of December quarter 1991 are not strictly comparable with levels for earlier periods because of change to the method used to value non-equity securities issued on foreign capital markets.

Source: ABS, *International Investment Position, Australia* (5306.0).

Explanatory Notes

Foreign investment in Australia refers to the stock of Australian liabilities owed to non-residents; and capital transactions and other changes which increase or decrease this stock.

Foreign investment can take many forms and involves both public and private sectors of the Australian economy. The type of investment will affect the amount of influence or control the foreign investor has over Australian physical assets.

For example, foreign investment in government securities does not result in foreign control of Australian physical assets, while equity investment in companies may involve the transfer of control.

The concept of direct investment is broadly one of capital invested in an enterprise by an investor having a significant influence, either potentially or actually exercised, over the key policies of the enterprise. Direct investment is defined as any investment between two enterprises (or an individual and an enterprise) in a direct investment relationship.

For foreign investment in Australia, a direct investment relationship is deemed to exist between a resident enterprise and a foreign individual or enterprise having an equity interest in that resident enterprise of at least 10 per cent.

The level and composition of foreign investment in Australia are important in their own right in assessing for example, the effectiveness of government foreign investment policy, changing finance patterns and relationships with other countries. They are also important in terms of their impact on the balance of payments.

Further Reading

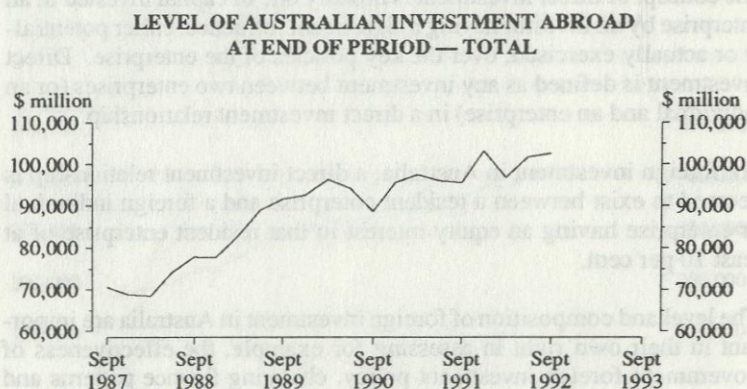
- ☐ *International Investment Position, Australia* (5306.0)
Contains quarterly detailed analysis of foreign investment in Australia, by institutional sector and type of investment.
- ☐ *International Investment Position, Australia* (5305.0)
Contains comprehensive annual data on foreign investment in Australia, by institutional sector and type of investment.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

2.2.11

Australian Investment Abroad

Comment

The level of Australian investment abroad increased sharply between the end of March 1988 and the end of March 1990. After March 1990 there were two consecutive falls but these were soon offset by the December 1990 increase. Since then the levels of Australian investment abroad has grown further and remained higher than the level recorded in December quarter 1990.



**LEVEL OF AUSTRALIAN INVESTMENT ABROAD AT END OF PERIOD
(\$ million)**

Period	Equity	Reserve assets and lending (a)	Other	Total
ANNUAL				
1987-88	41,531	26,406	6,353	74,291
1988-89	52,663	29,100	7,278	89,041
1989-90	56,037	30,371	7,857	94,266
1990-91	52,640	35,740	7,674	96,055
1991-92	57,859	37,142	6,759	101,761
QUARTERLY				
1991—				
March	57,021	33,143	7,399	97,563
June	52,640	35,740	7,674	96,055
September	54,169	33,981	7,505	95,655
December	58,714	37,233	7,229	103,176
1992—				
March	56,065	33,545	7,118	96,728
June	57,859	37,142	6,759	101,761
September	57,703	38,184	6,661	102,548

(a) Levels of lending from the end of December quarter 1991 are not strictly comparable with levels for earlier periods because of change in the method used to value non-equity securities issued on foreign capital markets.

Source: ABS, *International Investment Position, Australia* (5306.0).

Explanatory Notes

Australian investment abroad refers to the stock of foreign financial assets (claims on non-residents) owned by Australian residents; and capital transactions and other changes which increase or decrease this stock.

Australian's invest in foreign countries for a variety of reasons, including: the securing and maintenance of market share, sales promotion, effective marketing, avoidance of tariffs and import restrictions, securing of raw materials and to take advantage of cheaper inputs or higher rates of return on investments or to spread their risk.

Earnings from Australian investment abroad form a component of the current account of the balance of payments. The income earned by Australia's investments abroad is income payable to Australia. A rise in earnings increases a current account surplus or reduces a current account deficit.

Further Reading

- ☐ *International Investment Position, Australia* (5306.0)
Contains quarterly detailed analysis of Australian Investment Abroad, by institutional sector and type of investment.
- ☐ *International Investment Position, Australia* (5305.0)
Contains comprehensive annual data on Australian Investment Abroad, by institutional sector and type of investment.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

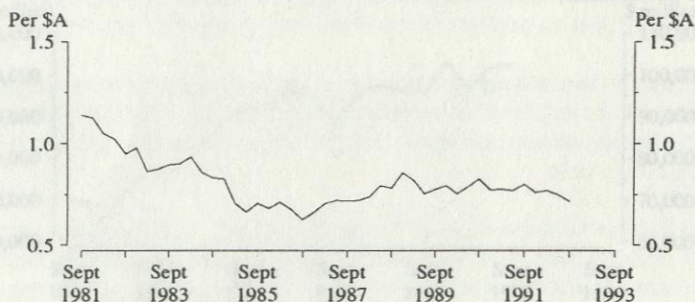
2.2.12

Exchange Rates

Comment

During the first 5 years shown on the graph below, the value of the Australian dollar (\$A), as measured against the United States dollar (\$US), fell to its lowest level (\$0.63) at the end of the September quarter 1986. It recovered somewhat to peak at \$0.86 at the end of the December quarter 1988. This was followed by a sharp decline to a low of \$0.76 at the end of the June quarter 1989. More recently, it has declined reaching \$0.71 at the end of the September quarter 1992.

UNITED STATES DOLLAR PER AUSTRALIAN DOLLAR



Source: ABS 5302.0, Quarterly data

EXCHANGE RATES: CURRENCY PER AUSTRALIAN DOLLAR (a)

Period	United States dollar	United Kingdom pound	German mark	Japanese yen
ANNUAL				
1986-87	0.72	0.45	1.32	105.79
1987-88	0.79	0.46	1.44	105.17
1988-89	0.76	0.49	1.48	108.79
1989-90	0.79	0.45	1.32	120.41
1990-91	0.77	0.47	1.38	106.19
1991-92	0.75	0.39	1.14	94.05
QUARTERLY				
1991—				
March	0.78	0.45	1.33	108.40
June	0.77	0.47	1.38	106.19
September	0.80	0.46	1.33	106.25
December	0.76	0.41	1.15	95.20
1992—				
March	0.77	0.44	1.27	102.30
June	0.75	0.39	1.14	94.05
September	0.71	0.40	1.01	85.29

(a) Rates are for the last trading day of the reference period.

Source: ABS, Balance of Payments, Australia (5302.0)

Explanatory Notes

The price of one currency against another is known as the exchange rate. For example, at the end of September 1992 one Australian dollar would purchase 0.71 United States dollars, 0.40 United Kingdom pounds, and 85 Japanese yen. Similarly, 0.71 United States dollars would purchase one Australian dollar. Therefore, the exchange rate can be used as a measure of a currency's value.

Exchange rates vary over time. When the exchange rate for the Australian dollar against another currency rises (appreciates) it will buy more of the foreign currency.

Exchange markets in which currencies are bought and sold facilitate world trade. When selling goods and services abroad Australian residents receive foreign currencies which can be used as payment for imports of goods and services.

The value of the exchange rate affects the price that Australia receives for its exports and pays for its imports. Generally when the exchange rate for a country's currency appreciates the price residents pay for imports declines, while for non-residents our exports become more expensive. Alternatively, a currency depreciation will cause the price of imports into Australia to rise and lower the international price of our exports. These changes can affect the demand for imports and exports and, hence, the balance of payments.

Further Reading

- ☐ *Average Monthly Exchange Rates (5654.0)*
Contains averages of daily exchange rates for approximately 35 currencies, including both the buying and selling rates, and final day trading values against major currencies.
- ☐ *Balance of Payments, Australia (5302.0)*
Contains quarterly average and end of quarter exchange rates for the latest 10 quarters of the major currencies.
- ☐ *Balance of Payments, Australia (5303.0)*
Contains yearly average and end of year exchange rates for the latest 6 years of the major currencies.

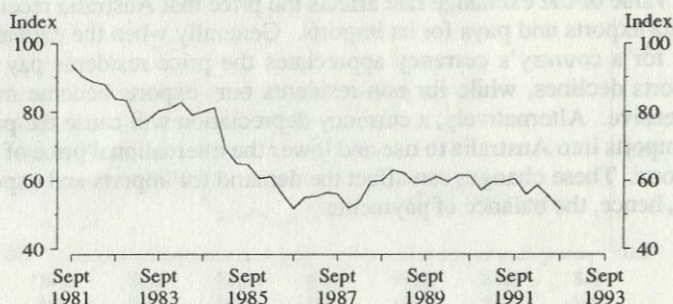
2.2.13

Trade-weighted Index

Comment

The value of the Australian dollar (\$A), as measured against other currencies by the trade-weighted index fell sharply following the floating of the Australian dollar in 1984. This marked the beginning of a volatile period but the index has declined overall to reach its lowest level (51.7) at the end of the September quarter 1992. The previous low (51.9) was recorded at the end of the September quarter 1986. Following this, the index recovered somewhat to peak at 63.2 at the end of the December quarter 1988 before declining overall to its present level.

TRADE-WEIGHTED INDEX
(MAY 1970 = 100)



Source: ABS 5302.0, Quarterly data

TRADE-WEIGHTED INDEX AND UNITED STATES DOLLAR EXCHANGE RATE
AT END OF PERIOD (a)

Period	Trade-weighted index (b)	United States Dollar (per \$A)
ANNUAL		
1986-87	56.6	0.72
1987-88	59.8	0.79
1988-89	59.4	0.76
1989-90	61.6	0.79
1990-91	59.7	0.77
1991-92	55.2	0.75
QUARTERLY		
1991—		
March	59.7	0.78
June	59.7	0.77
September	60.6	0.80
December	55.9	0.76
1992—		
March	58.6	0.77
June	55.2	0.75
September	51.7	0.71

(a) These exchange rates and index numbers relate to the last trading day of the reference period. (b) May 1970 = 100.0.

Sources: ABS, Balance of Payments, Australia (5302.0)

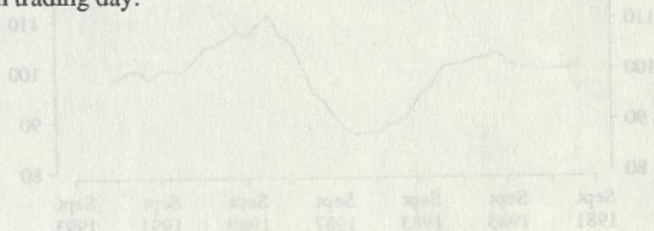
Explanatory Notes

The Australian exchange rate is usually quoted in terms of its exchange with the United States dollar (\$US).

However to get a more comprehensive indication of Australia's exchange rate a trade-weighted index (TWI) is used. The TWI measures changes in our currency relative to the currencies of our main trading partners. Taken into account is the relative importance of trade occurring between each country and Australia. Over time, international trade patterns tend to alter, making it necessary to modify the weights to reflect the new trade patterns. The last update by the Reserve Bank of Australia (RBA) occurred in October 1992.

The RBA's trade-weighted index includes 23 countries that account for at least 90 per cent of Australia's two-way trade.

The TWI is an absolute number and does not express the price of any one currency in another. Calculation of the TWI is based on the exchange rates for the \$A against the chosen currencies at 4 p.m. for each trading day.



Further Reading

- ☐ *Balance of Payments, Australia (5302.0)*
Contains the quarterly average and end of quarter trade-weighted index for the latest 10 quarters.
- ☐ *Balance of Payments, Australia (5303.0)*
Contains the yearly average and end of year trade-weighted index for the latest 6 years.

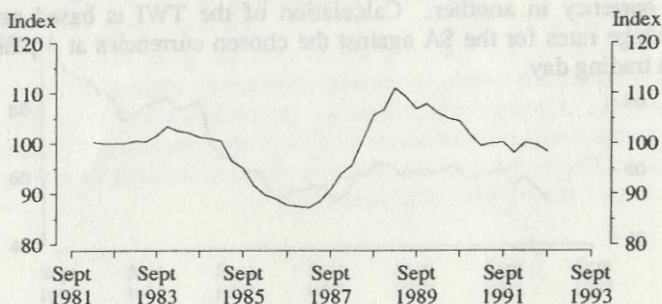
2.2.14

Terms of Trade

Comment

In seasonally adjusted terms, Australia's terms of trade for goods and services fell significantly between the June quarter 1985 to the June quarter 1987, with 9 consecutive falls. However, over the next 2 years the terms of trade improved dramatically, peaking in the March quarter 1989. Since then, the terms of trade has again fallen to levels experienced in the early 1980s.

TERMS OF TRADE FOR GOODS AND SERVICES,
SEASONALLY ADJUSTED (1984-85 = 100)



Source: ABS 5302.0, Quarterly data

TERMS OF TRADE FOR GOODS AND SERVICES
(1984-85 = 100)

Period	Terms of trade
ANNUAL	
1986-87	87.8
1987-88	95.5
1988-89	108.4
1989-90	106.5
1990-91	101.6
1991-92	99.6
QUARTERLY — SEASONALLY ADJUSTED	
1991—	
March	99.6
June	100.0
September	100.3
December	98.2
1992—	
March	100.2
June	99.7
September	98.5

Source: ABS, Balance of Payments (5302.0)

Explanatory Notes

A country's terms of trade shows a country's export prices relative to its import prices. It is expressed as an index, which is calculated by dividing an index of prices received for exports by an index of prices paid for imports.

A rise in the index implies an improvement in a country's terms of trade. It becomes possible to purchase more imports with the same amount of exports. Improvement in a country's terms of trade occurs when export prices rise, when import prices fall or when export prices rise at a faster rate than import prices, or when export prices fall at a slower rate than import prices.

A fall in the index occurs when a country's terms of trade deteriorates. It is necessary to export more to purchase the same amount of imports. A deterioration occurs when import prices rise, when export prices fall or when import prices rise at a faster rate than export prices, or when import prices fall at a slower rate than export prices.

Further Reading

- ☐ *Balance of Payments, Australia* (5302.0)
Provides estimates of the price indexes of exports and imports and also a measure of terms of trade for the latest 10 quarters. See the feature article in the September 1990 issue for an explanation of the measurement of Australia's terms of trade.
- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0)
Contains comparative time series for the latest 6 years covering export and import price index information as well as terms of trade statistics.
- ☐ *Australian Economic Indicators* (1350.0)
See the feature article in the December 1991 issue on the review of the Import Price Index.



Section 2.3

Domestic Consumption and Investment

- 2.3.1 Private Final Consumption Expenditure
- 2.3.2 Retail Turnover
- 2.3.3 Private Non-farm Stocks to Sales Ratio
- 2.3.4 Private New Capital Expenditure
- 2.3.5 Residential Building Construction
- 2.3.6 Non-residential Building Activity
- 2.3.7 Engineering Construction
- 2.3.8 New Motor Vehicle Registrations

Further Reading

SELECTED COMPONENTS OF PRIVATE FINAL CONSUMPTION EXPENDITURE AT AVERAGE 1984-85 PRICES (£ million)			
[1] Australian National Accounts: National Income, Expenditure and Product			
Contains annual data for the last 40 years of the components of private final consumption expenditure			
Year	Private final consumption expenditure	Private consumption expenditure in the non-durable goods sector	Private consumption expenditure in the durable goods sector
1984-85	21,047	8,418	12,629
1983-84	20,546	8,169	12,377
1982-83	20,147	7,979	12,168
1981-82	19,747	7,789	11,958
1980-81	19,347	7,599	11,748
1979-80	18,947	7,409	11,538
1978-79	18,547	7,219	11,328
1977-78	18,147	7,029	11,118
1976-77	17,747	6,839	10,908
1975-76	17,347	6,649	10,698
1974-75	16,947	6,459	10,488
1973-74	16,547	6,269	10,278
1972-73	16,147	6,079	10,068
1971-72	15,747	5,889	9,858
1970-71	15,347	5,699	9,648
1969-70	14,947	5,509	9,438
1968-69	14,547	5,319	9,228
1967-68	14,147	5,129	9,018
1966-67	13,747	4,939	8,808
1965-66	13,347	4,749	8,598
1964-65	12,947	4,559	8,388
1963-64	12,547	4,369	8,178
1962-63	12,147	4,179	7,968
1961-62	11,747	3,989	7,758
1960-61	11,347	3,799	7,548
1959-60	10,947	3,609	7,338
1958-59	10,547	3,419	7,128
1957-58	10,147	3,229	6,918
1956-57	9,747	3,039	6,708
1955-56	9,347	2,849	6,498
1954-55	8,947	2,659	6,288
1953-54	8,547	2,469	6,078
1952-53	8,147	2,279	5,868
1951-52	7,747	2,089	5,658
1950-51	7,347	1,899	5,448
1949-50	6,947	1,709	5,238
1948-49	6,547	1,519	5,028
1947-48	6,147	1,329	4,818
1946-47	5,747	1,139	4,608
1945-46	5,347	949	4,398
1944-45	4,947	759	4,188
1943-44	4,547	569	3,978
1942-43	4,147	379	3,768
1941-42	3,747	189	3,558
1940-41	3,347	-	3,348

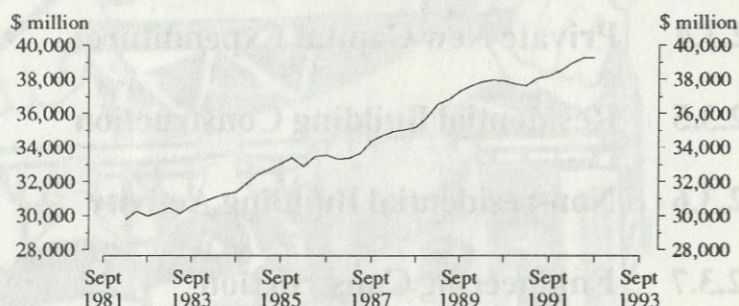
2.3.1

Private Final Consumption Expenditure

Comment

Private final consumption expenditure in seasonally adjusted constant price terms reflected high levels of consumer confidence during the 1980s. Private final consumption expenditure recorded 11 consecutive quarters of positive growth from the June quarter 1983, and 15 consecutive quarters of positive growth from the December quarter 1986. From the June quarter 1991, private final consumption expenditure has generally continued to increase, although the September quarter 1992 saw a flattening out.

TOTAL PRIVATE FINAL CONSUMPTION EXPENDITURE
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 5206.0, Quarterly data

SELECTED COMPONENTS OF PRIVATE FINAL CONSUMPTION EXPENDITURE
AT AVERAGE 1984-85 PRICES
(\$ million)

Period	Food	Clothing, fabrics and footwear	Health	Dwelling rent	Total
ANNUAL					
1986-87	21,047	8,818	9,104	22,888	133,780
1987-88	21,461	8,991	9,568	23,339	139,223
1988-89	21,457	8,905	9,967	23,854	144,229
1989-90	22,147	8,679	10,307	24,451	150,637
1990-91	22,646	8,489	10,668	25,010	151,198
1991-92	23,623	8,820	11,011	25,528	154,850
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	5,635	2,142	2,618	6,270	37,635
June	5,682	2,103	2,828	6,301	38,042
September	5,854	2,137	2,767	6,333	38,210
December	5,817	2,183	2,660	6,365	38,494
1992—					
March	5,895	2,217	2,766	6,398	38,940
June	6,070	2,261	2,839	6,432	39,254
September	6,138	2,181	2,828	6,464	39,259

Source: ABS, Australian National Accounts: National Income, Expenditure and Product (5206.0).

Explanatory Notes

Private final consumption expenditure measures current expenditure by households and producers of private non-profit services to households, such as charities, clubs, trade unions and private schools. The outlays covered include expenditure on consumer durables such as cars, furniture and long lasting household appliances; consumer semi-durables such as clothing and other appliances; single use goods such as food; and services of all kinds, for example hairdressing and public transport.

Private final consumption expenditure makes up over half of GDP(E) and is the largest component of aggregate demand. Consequently, changes in private final consumption expenditure from one period to another have a significant impact on overall changes in GDP(E). If demand for consumer goods and services falls, this will be reflected in falling private final consumption expenditure. On the other hand, if demand for consumer goods and services increases, this will be reflected in increasing private final consumption expenditure.

The level of private final consumption expenditure is dependant on a number of factors including: present and anticipated future levels of income, expenditure and saving habits, relative price levels and the rate of inflation.

Economic policy makers may attempt to influence the level of private final consumption expenditure to dampen or stimulate the economy by altering the level of household disposable income through taxation or wages policy.

Further Reading

- ☐ *Australian National Accounts: National Income and Expenditure* (5204.0)
Contains annual data for the last 12 years of the components of private final consumption expenditure.
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
Contains quarterly data for the last 9 quarters of the components of private final consumption expenditure.
- ☐ *Australian National Accounts, Concepts, Sources and Methods*, (5216.0)
Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.

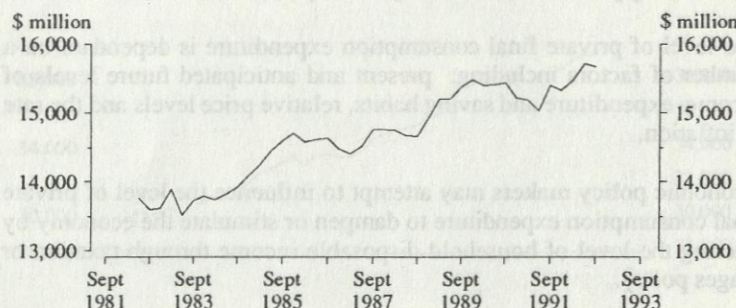
2.3.2

Retail Turnover

Comment

Seasonally adjusted constant price estimates of the turnover of retail establishments during the 1980s displayed two periods of general growth. The first and longest period of growth occurred between the June quarter 1983 and the December quarter 1985. The second growth period occurred from the September quarter 1988 through to the December quarter 1989.

TURNOVER OF RETAIL ESTABLISHMENTS
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 8501.0, Quarterly data

TURNOVER OF RETAIL ESTABLISHMENTS AT AVERAGE 1984-85 PRICES
(\$ million)

Period	Total
ANNUAL	
1986-87	58,044.1
1987-88	59,138.8
1988-89	60,066.7
1989-90	61,676.1
1990-91	60,703.2
1991-92	62,024.5
QUARTERLY — SEASONALLY ADJUSTED	
1991—	
March	15,191.8
June	15,027.8
September	15,403.8
December	15,326.4
1992—	
March	15,476.4
June	15,718.5
September	15,672.8

Source: ABS, Retail Trade, Australia (8501.0).

Explanatory Notes

This series presents estimates of turnover for retail (i.e. grocers, clothing stores, department stores, etc.) and selected service businesses (such as cafes and restaurants, hotels and licensed clubs, etc.) for each State and Territory. Turnover includes retail sales, wholesale sales, takings from repairs, meals and hiring of goods (except for rent, leasing and hiring of land and buildings) and commissions from agency activity (e.g. commissions received from collecting dry cleaning).

The data are provided in original terms and in seasonally adjusted terms, the latter removing the estimated effects of normal seasonal variation, such as Christmas or Easter trading, from the series. Seasonal adjustment also takes account of trading effects arising from the varying length of each month and the varying number of Fridays, Saturdays, Sundays, etc. during the month. Seasonally adjusted data still contain the effects of irregular influences such as strikes. These irregular influences are significantly dampened in trend series of retail turnover produced by the ABS.

To enable the analysis of retail activity in "real terms", estimates of retail turnover at constant (average 1984-85) prices are compiled each quarter. This removes the effects of price increases over time.

The retail trade series dates back to 1965 and is one of the ABS' main economic indicator series. It provides economists with an indication of the current economic picture and enables them to make assessments, in conjunction with other economic indicators, of the direction the Australian economy is taking.

Further Reading

- ☐ *Retail Trade, Australia* (8501.0)
Contains monthly estimates of turnover for retail establishments for Australia, each State and Territory, and by industry.
- ☐ *Retail Trade, Commodity Details 1988-89 and 1989-90, Australia* (8512.0)
Contains details by industry of the value of retail sales by commodity item.
- ☐ *Australian Economic Indicators* (1350.0)
See the feature article in the August 1991 publication for a time series decomposition of retail trade.

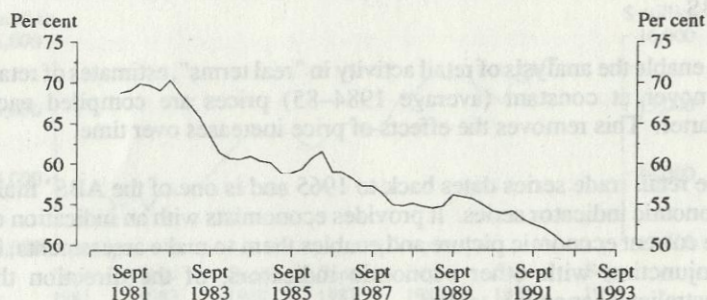
2.3.3

Private Non-Farm Stocks to Sales Ratio

Comment

The private non-farm stocks to sales ratio, seasonally adjusted at constant prices, has generally declined in recent years. A noticeable exception to this has been the increase recorded between the December quarter 1985 and the June quarter 1986. One of the likely factors behind the general decrease in non-farm stocks to sales ratio is the adoption by businesses of more cost-effective stock management systems. Another factor is the growing importance of services in total final expenditure, since the provision of most services involves little stock holding.

PRIVATE NON FARM STOCKS TO SALES RATIO
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 5206.0, Quarterly data

PRIVATE NON-FARM STOCKS TO SALES RATIO AT AVERAGE 1984-85 PRICES
(\$ million)

Period	Private non-farm stocks, accumulated	Gross non-farm product (I)	Imports of services and endogenous goods	Change in private non-farm stocks	Sales (derived) (a)	Private non-farm stocks to sales ratio (%)
ANNUAL						
1986-87	149,991	221,441	33,887	-906	256,234	58.5
1987-88	151,300	232,373	38,226	275	270,324	56.0
1988-89	157,719	242,503	47,306	2,766	287,043	54.9
1989-90	166,622	248,979	50,178	899	298,258	55.9
1990-91	160,380	247,106	47,894	-1,952	296,952	54.0
1991-92	154,865	248,485	49,984	-1,172	299,641	51.7
QUARTERLY — SEASONALLY ADJUSTED						
1991—						
March	39,958	62,077	11,506	-111	73,694	54.2
June	39,466	61,452	12,207	-492	74,151	53.2
September	38,904	61,366	12,048	-562	73,976	52.6
December	38,858	62,155	12,181	-46	74,382	52.2
1992—						
March	38,626	62,495	12,591	-232	75,318	51.3
June	38,281	62,716	13,228	-345	76,289	50.2
September	38,257	62,807	13,238	-24	76,069	50.3

(a) Sales is derived by adding gross non-farm product (I) to imports of services and endogenous goods and adjusting for changes in private non-farm stocks.

Source: ABS, Australian National Accounts: National Income, Expenditure and Product (5206.0), Balance of Payments, Australia (5302.0) and unpublished data.

Explanatory Notes

The private non-farm stocks to sales ratio gives the indication of the level of stocks (or inventories) held by private sector businesses other than those in farming compared with sales in a given period of time. Private non-farm stocks are defined to include goods for sale (either of own production or purchased for resale), work in progress, raw materials and stores of all non-farm industries. All private non-farm industries are covered, with the major stock-holding industries being manufacturing, wholesale trade, retail trade and mining.

Private non-farm stock levels may fluctuate significantly with changes in economic activity. Such periodic fluctuations in the level of non-farm stocks are called the "stocks cycle". It should be noted that there has been a general decline in the private non-farm stocks to sales ratio since the early 1980s as businesses have adopted more cost-effective stock management systems. Another factor is the growing importance of services in total final expenditure, since the provision of most services involves little stock holding.

The private non-farm stocks to sales ratio is an important indicator of future business intentions. An increase in the ratio may indicate that businesses have decided to build up stocks in anticipation of increased sales. On the other hand, the ratio may fall as businesses decide to run down their stocks if sales are expected to weaken.

Of course, at times there will also be some unplanned stock build-ups or run-downs. If sales are higher than expected, then stock levels will be less than planned. Conversely, if sales are lower than anticipated, then there will be an increase in stock holdings in the short term. In this way, stocks act as the buffer between changes in demand and the supply of goods available to meet that demand.

Further Reading

- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
Contains sales to stocks ratio in 1984–85 seasonally adjusted terms.
- ☐ *Balance of Payments, Australia* (5302.0)
Contains imports of services and endogenous goods in 1984–85 seasonally adjusted terms.

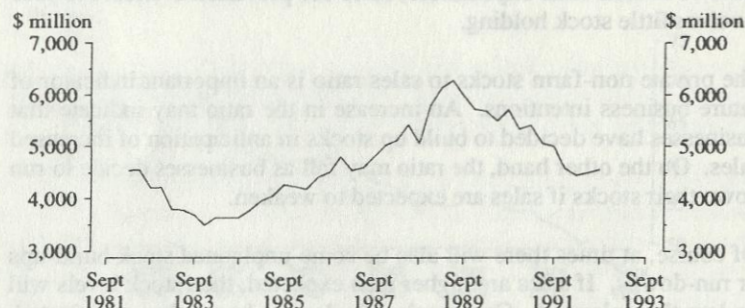
2.3.4

Private New Capital Expenditure

Comment

During the era of economic growth in the 1980s, actual private new capital expenditure, seasonally adjusted at constant prices, grew from a trough in the December quarter 1983 of \$3,501m to a peak of \$6,284m in the June quarter 1989. Private new capital expenditure has generally continued to decrease since the June quarter 1989. The June quarter 1992 saw private new capital expenditure fall to a level similar to that recorded in 1987.

ACTUAL PRIVATE NEW CAPITAL EXPENDITURE
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 5626.0, Quarterly data

ACTUAL PRIVATE NEW CAPITAL EXPENDITURE AT AVERAGE 1984-85 PRICES
(\$ million)

Period	Buildings and structures	Equipment, plant and machinery	Total
ANNUAL			
1986-87	6,414	12,078	18,492
1987-88	7,220	13,202	20,422
1988-89	7,938	15,361	23,299
1989-90	7,781	15,113	22,894
1990-91	7,270	14,221	21,492
1991-92	5,541	13,007	18,548
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	1,866	3,554	5,420
June	1,630	3,442	5,072
September	1,540	3,464	5,005
December	1,381	3,204	4,585
1992—			
March	1,307	3,151	4,458
June	1,313	3,190	4,502
September	1,408	3,148	4,557

Source: ABS, Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0).

Explanatory Notes

Private new capital expenditure is also referred to as business fixed investment. It is defined as all spending by Australian business on new fixed tangible assets. The quarterly ABS business survey produces data by industry and by State.

Investment spending is classified into two types of asset: buildings and structures and equipment, plant and machinery. The level of investment in these assets has a major impact on the future productive capacity of the economy.

In the Australian national accounts, the measure of fixed investment used in the expenditure based method of determining gross domestic product is referred to as gross fixed capital expenditure. This is equal to new capital expenditure plus acquisitions of second hand assets, minus disposals of second hand assets.

As well as collecting details of actual expenditure, the survey also collects data from businesses on expected capital expenditure for periods up to 18 months in advance.

Investment is largely a reflection of the level of business confidence about future demand. Capital expenditure may be for assets which will increase production, increase efficiency or replace old equipment.

Businesses need to take into account many factors when planning their investment. Data analysts therefore see this series as a very useful summary indicator.

Further Reading

- ☐ *Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0)*
Contains estimates of actual and new capital expenditure by type of asset and selected industry.
- ☐ *State Estimates of Private New Capital Expenditure (5646.0)*
Contains a break-up by State of the Australian estimates contained in the above publication (5626.0).

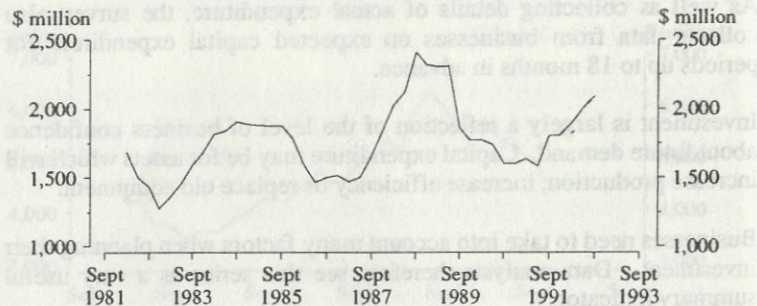
2.3.5

Residential Building Construction

Comment

In seasonally adjusted constant price terms, the value of residential building approvals has experienced 3 periods of sharp increases between the March quarter 1982 and the September quarter 1992. The most significant of these increases was between the June quarter 1987 and the September quarter 1988, where residential building activity rose from \$1,502 m to \$2,413m or by 60.7 per cent.

VALUE OF RESIDENTIAL BUILDING APPROVALS
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 8731.0, Quarterly data

RESIDENTIAL BUILDING APPROVALS AND COMMENCEMENTS,
NUMBER AND VALUE AT AVERAGE 1984-85 PRICES

Period	Number of new dwelling unit approvals	Value of approvals (\$m)	Number of new dwelling unit commencements	Value of commencement (\$m)
ANNUAL				
1986-87	120,780	6,005	116,121	5,872
1987-88	151,168	7,669	135,812	7,089
1988-89	186,358	9,350	174,963	9,173
1989-90	140,016	7,140	137,702	7,180
1990-91	126,046	6,403	121,346	6,328
1991-92	150,201	7,539	140,136	7,223
QUARTERLY — SEASONALLY ADJUSTED				
1991—				
March	31,469	1,637	29,671	1,546
June	31,737	1,582	30,183	1,524
September	35,698	1,805	32,691	1,645
December	35,769	1,809	33,798	1,769
1992—				
March	37,569	1,894	35,210	1,821
June	40,834	2,005	38,568	1,997
September	40,442	2,091	38,124	n.y.a.

Source: ABS, Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

Explanatory Notes

A residential building is defined as a building which is predominantly used for long-term residential purposes, and can contain one dwelling unit (i.e. house) or more than one dwelling unit (i.e. flats).

Residential building construction depends on the demand that exists for new places of residence. When the population is expanding rapidly the level of residential construction needs to be increased in order to meet the demand for new homes.

The willingness of individuals and investors to undertake residential building construction is affected by the interest rate and the economic climate. During times of economic expansion individuals and investors are more willing to invest in residential construction than during periods of economic decline.

When construction is being financed by borrowed funds the interest rate affects the cost of investing. When interest rates are high, investors and developers need to determine whether the return on their investment will make it viable to proceed with construction. Measures of the return on their investment are house prices (for those who sell) and the level of rents (for those who rent dwellings). Other factors which affect investment are the cost of land, labour and building materials. All of these are affected by the prevailing economic climate.

Residential construction statistics are used by both government and private organisations. One of these organisations is the Indicative Planning Council for the housing industry which uses building statistics to assist in forecasting the demand and supply of new housing. The Government uses the Council's forecasts as one input to determine future policy adjustments regarding residential construction or the economy in general.

The housing sector is seen to be a leading indicator of the general state of the economy. Because housing is seen as a basic requirement for all Australians, there has been a continuing demand for more houses as the population has grown. As economic conditions become more favourable, the housing sector is one of the first areas to pick up as it meets the pent-up demand which generally occurs.

Further Reading

- ☐ *Building Approvals, Australia* (8731.0)
Contains monthly information on the number of dwelling units and the value of residential building approved for the private and public sectors.
- ☐ *Building Activity, Australia* (8752.0)
Contains quarterly data on the number of dwelling units and the value of residential buildings by private and public sector ownership for Australia and each State and Territory.

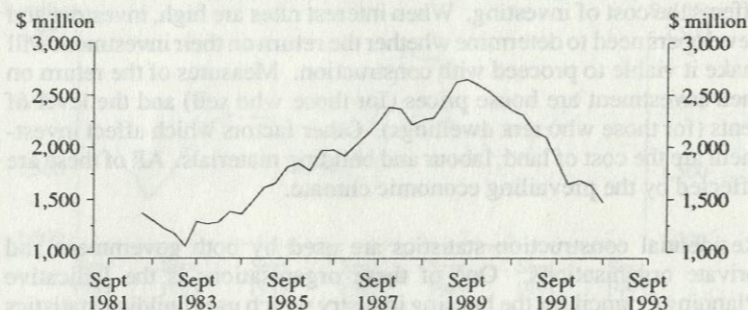
2.3.6

Non-residential Building Activity

Comment

Estimates of seasonally adjusted constant price non-residential building activity generally rose from the June quarter 1983 to the September quarter 1989. Since then, non-residential building activity has been declining at a faster rate than that at which it rose prior to the September quarter 1989. The most significant decrease in non-residential building activity was recorded between the September and December quarters of 1991.

NON-RESIDENTIAL BUILDING ACTIVITY
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED



Source: ABS 8752.0, Quarterly data

NON-RESIDENTIAL BUILDING ACTIVITY AT AVERAGE 1984-85 PRICES (a)
(\$ million)

Period	Private sector	Public sector	Total
ANNUAL			
1985-86	5,171	2,254	7,425
1986-87	5,404	2,641	8,045
1987-88	6,681	2,543	9,224
1988-89	7,413	2,207	9,620
1989-90	7,891	2,348	10,239
1990-91	6,368	2,580	8,948
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	1,505	653	2,155
June	1,435	655	2,102
September	1,222	657	1,866
December	1,092	556	1,650
1992—			
March	1,135	556	1,687
June	1,113	513	1,636
September	989	491	1,471

(a) From the September quarter 1990, only non-residential building jobs with an approval value of \$50,000 (previously \$30,000) or more are included.

Source: ABS, Construction Activity at Constant Prices, Australia (8752.0).

Explanatory Notes

Non-residential buildings are defined as buildings other than residential buildings and include hotels, shops, factories, offices, etc. The level of non-residential building construction is an indicator of the level of investment and activity occurring in the economy. Non-residential buildings are used by businesses (both private and public) who participate in economic activity and services (hospitals, schools, etc.) which are essential for the community.

Construction of non-residential buildings varies with the demand for particular types of buildings and with the level of economic activity. While overall economic conditions generally determine whether the return on an investment will be greater than the costs of investment, the demand for particular types of buildings varies considerably.

Thus the demand for construction of new hotels depends on the perceived level of future tourism activity, the demand for factories on the state of the manufacturing industry and the demand for shops and offices on the current (over or under) supply of these buildings and some feel for future demand. The demand for construction of community and public services (hospitals, schools, etc.) tends to be more constant and more affected by government budget considerations.

Since most construction activities are funded by borrowed funds, the rate of interest could also affect the level of non-residential building construction. The interest rate is part of the cost of construction and could encourage investment in non-residential buildings when low and discourage investment when high. However, interest rates remained at a fairly high level throughout the period of growth in non-residential building, but have fallen during the 1990s. Non-residential building has also been falling in this latter period, suggesting that activity is more dependent on demand, or supply.

The level of non-residential building is used by public and private sector bodies as a measure of economic activity and an indicator of business confidence and growth.

Further Reading

- ☐ *Building Approvals, Australia* (8731.0)
Contains monthly information on the number and value of non-residential building by class of building approved.
- ☐ *Building Activity, Australia* (8752.0)
Contains quarterly data on the value of non-residential buildings by class of building by private and public sector ownership for Australia and each State and Territory.

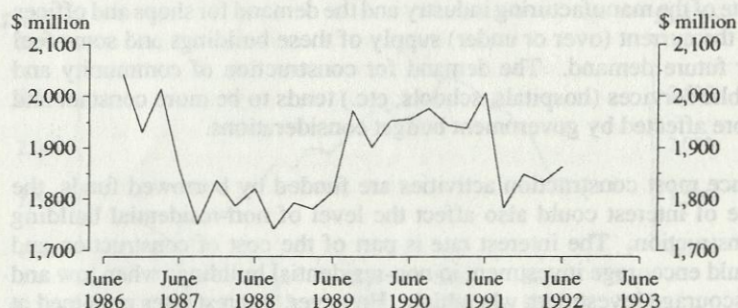
2.3.7

Engineering Construction

Comment

In seasonally adjusted constant price terms, the value of work done for engineering construction fell sharply from the September quarter 1986 to the September quarter 1987. The series then rose to a peak in the June quarter 1991 but fell significantly in the September quarter 1991.

ENGINEERING CONSTRUCTION ACTIVITY
VALUE OF WORK DONE AT AVERAGE 1984-85 PRICES
SEASONALLY ADJUSTED



Source: ABS 8762.0, Quarterly data

ENGINEERING CONSTRUCTION ACTIVITY
VALUE OF WORK DONE AT AVERAGE 1984-85 PRICES
(\$ million)

Period	Total private sector	Total public sector	Total
ANNUAL			
1987-88	3,583	3,600	7,184
1988-89	3,532	3,600	7,132
1989-90	3,749	4,048	7,797
1990-91	3,887	3,974	7,861
1991-92	3,923	3,439	7,362
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	968	970	1,938
June	1,017	990	2,007
September	1,001	784	1,784
December	985	864	1,848
1992—			
March	948	885	1,832
June	988	900	1,888
September	879	820	1,698

Source: ABS, Construction Activity at Constant Prices, Australia (8762.0).

Explanatory Notes

Engineering construction can be defined as infrastructure construction. It includes construction other than buildings, e.g. roads, bridges, railways, telecommunications, water and sewerage and electricity generation and distribution facilities.

The level of engineering construction gives an indication of the economy's capability to grow and expand in the future. A modern economy needs a highly efficient infrastructure to ensure the economy can operate to its capacity and that the population is adequately serviced.

Before September 1986, data on engineering construction were limited to projects valued at \$100,000 or more undertaken by private contractors only. From September 1986, the collection was expanded to include all engineering construction work undertaken by both the private and public sectors, irrespective of the value of the individual projects.

A significant proportion of engineering construction is funded by government although much of the work is contracted out to private sector firms.

The level of engineering construction does not appear to be affected by interest rates to any significant degree. Changes in the level of activity in engineering construction are a reflection of government and business commitment to increasing infrastructure.

Further Reading

Further Reading

- ☐ *Engineering Construction Activity, Australia (8762.0)*
Presents the value of engineering construction work done classified by State and Territory, commodity (roads, bridges, pipelines, etc.) and sector (level of government/private) and by sector undertaking work and sector for whom the work is being done.
- ☐ *Construction Activity at Constant Prices, Australia (8782.0)*
Contains general measures of activity within the building and construction sectors, including engineering construction. Data is in original and seasonally adjusted forms.

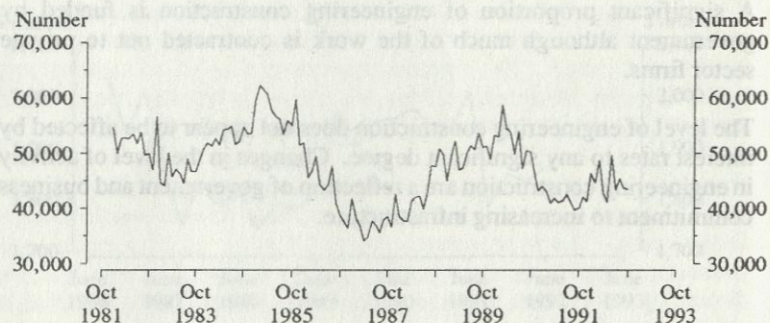
2.3.8

New Motor Vehicle Registrations

Comment

New motor vehicle registrations experienced 2 peaks during the 1980s and early 1990s. Seasonally adjusted estimates of new motor vehicle registrations rose to 62,289 in February 1985, fell to a low of 34,202 registrations in April 1987 then rose to a second peak of 54,456 registrations in April 1990.

NEW MOTOR VEHICLE REGISTRATIONS
SEASONALLY ADJUSTED



Source: ABS 9301.0, Monthly data

NEW MOTOR VEHICLE REGISTRATIONS

Period	ANNUAL	Total (a)
1986-87		468,801
1987-88		470,820
1988-89		569,221
1989-90		627,824
1990-91		542,196
1991-92		521,080
MONTHLY — SEASONALLY ADJUSTED		
1991—		
August		41,166
September		39,772
October		40,007
1992—		
August		45,366
September		43,653
October		43,505

(a) Excludes motor cycles, plant and equipment, caravans and trailers.

Source: ABS, Registrations of New Motor Vehicles, Australia, Preliminary (9301.0).

Explanatory Notes

When a new car is purchased, it is normally registered with the relevant motor vehicle registration authority. Statistics on registrations give an indication of the number of new motor vehicle sales.

A significant part of consumer spending is on buying new motor vehicles. Since consumer spending is an early indicator of trends in the economy, new motor vehicle registrations are an early indicator of the level of economic activity. During times of recession purchases of new cars fall; when the economy is booming new car purchases increase.

In certain States, a small proportion of registrations is not processed until some time after the actual date of registration. As a consequence, although the figures for a particular month largely reflect the sales in that month, they may also reflect a small number of sales in previous months. The impact of these processing lags is relatively constant over time and it is not felt they impinge on the overall usefulness of these data.

Both Commonwealth and State Government Treasury offices and other policy departments use registration statistics for economic planning. The statistics are also used by motor vehicle manufacturers and distributors for market research and by financial institutions in setting lending policies.

Further Reading

- ☐ *Registrations of New Motor Vehicles, Australia, Preliminary* (9301.0)
Contains monthly registrations in each State and Territory of new passenger vehicles and other vehicles.
- ☐ *Motor Vehicle Registrations, Australia* (9303.0)
Presents detailed information for each State and Territory on the number of registrations of new motor vehicles by vehicle type by make and selected make/model.
- ☐ *Motor Vehicle Census: Australia* (9309.0)
Contains data for each State and Territory for the number of vehicles on register by type of vehicle and year of manufacture, by type of vehicle and make.



Section 2.4

Production

- 2.4.1 Productivity
- 2.4.2 Index of Industrial Production
- 2.4.3 Mineral Production Index
- 2.4.4 Effective Rate of Assistance
- 2.4.5 Tourism
- 2.4.6 Volume of Farm Production

Further Reading

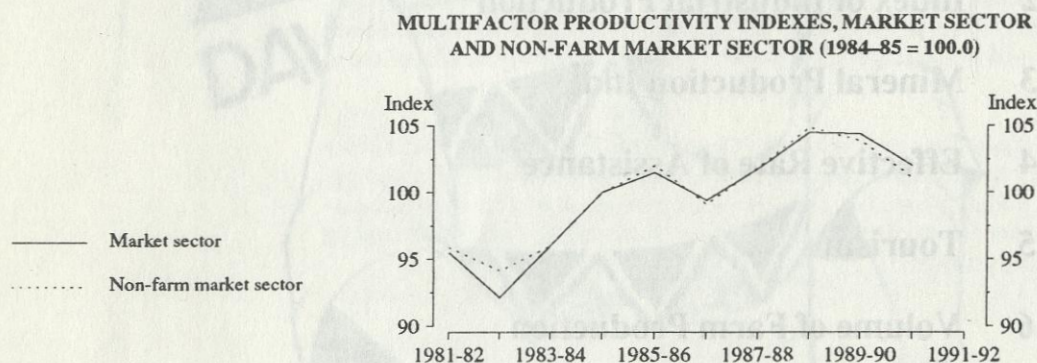
Productivity Index (1984-85 - 1994-95)			
Year	Index	Year	Index
1984-85	100	1994-95	100
1985-86	101	1995-96	101
1986-87	102	1996-97	102
1987-88	103	1997-98	103
1988-89	104	1998-99	104
1989-90	105	1999-00	105
1990-91	106	2000-01	106
1991-92	107	2001-02	107
1992-93	108	2002-03	108
1993-94	109	2003-04	109
1994-95	110	2004-05	110

2.4.1

Productivity

Comment

The multifactor productivity measures for the market and non-farm market sectors recorded very similar movements between 1981-82 to 1990-91. Both measures recorded a sharp rise from 1982-83 to 1984-85 and again between 1986-87 and 1988-89. Since 1988-89, multifactor productivity in the non-farm market sector has fallen more sharply than in the market sector.



Source: ABS 5234.0, Annual data

PRODUCTIVITY INDEXES (1984-85 = 100.0)

Period	Labour – market sector (a)	Capital – market sector (b)	Multifactor – market sector (c)	Labour – non-farm market sector (a)	Capital – non-farm market sector (b)	Multifactor – non-farm market sector (c)
ANNUAL						
1985-86	101.6	101.3	101.5	102.3	101.4	102.0
1986-87	99.8	98.6	99.4	99.8	97.9	99.1
1987-88	101.7	101.9	101.8	102.0	101.6	101.9
1988-89	104.8	104.0	104.5	105.5	103.9	104.9
1989-90	104.1	104.9	104.4	103.7	104.4	103.9
1990-91	103.3	99.5	102.0	102.8	97.9	101.1

(a) Constant price gross product per hour worked. (b) Constant price gross product per unit of capital stock. (c) Constant price gross product per combined unit of labour and capital.

Source: ABS, Australian National Accounts: Multifactor Productivity (5234.0).

Explanatory Notes

Productivity is the relationship between the output of an economic unit and the inputs, such as labour and capital, which have gone into producing that output. Productivity is increased through better utilisation of resources.

Multifactor productivity (MFP) is a measure of the efficiency of the production process considering a number of inputs (factors). It is expressed as a ratio of outputs to a combined measure of two or more factor inputs (e.g. capital and labour).

The ABS measures MFP as a ratio of gross product to a combined measure of capital stock and hours worked. It includes technical progress, improvements in the work force, improvement in management practices, economies of scale and so on. It can be affected in the short to medium term by elements such as the weather and the business cycle which influence the amount produced.

Labour productivity is usually measured as the amount produced per hour worked. Quite clearly, this can be affected by technological changes and changes in other inputs (e.g. capital), as well as changes in labour efficiency.

Capital productivity is measured as the amount of output produced per unit of capital employed. Machinery, equipment and structures are capital goods used in the production of goods and services.

Productivity measures are used by both government and private organisations to gauge the effect of changes in work practices, technology, education and training.

Further Reading

- ☐ *Australian National Accounts: Multifactor Productivity* (5234.0)
This annual publication contains indexes of multifactor productivity for the market and non-market sectors. It also includes associated indexes such as labour productivity, capital productivity and the capital labour ratio.
- ☐ *Occasional Paper : Estimates of Multifactor Productivity, Australia* (5233.0)
This paper describes what the ABS indexes of multifactor productivity actually measure and provides full details of the methods used to derive them. It also examines the weaknesses of the indexes and attempts to quantify them. Alternative measures of MFP are described briefly.

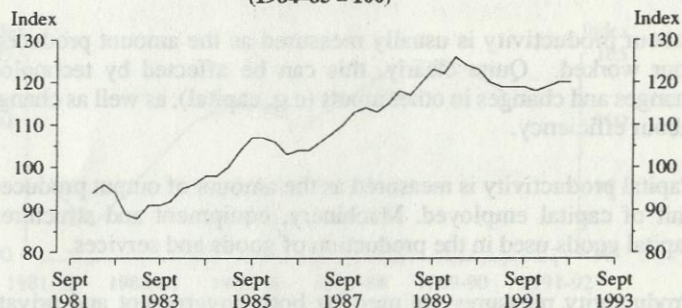
2.4.2

Indexes of Industrial Production

Comment

In seasonally adjusted constant price terms the index of industrial production has had two periods of growth over the past 10 years; the March quarter 1983 to the September quarter 1985 and the June quarter 1986 to the March quarter 1990. The index of industrial production has fallen since its peak in March quarter 1990, but the index remains higher than the levels recorded prior to the June quarter 1989.

INDEX OF TOTAL INDUSTRIAL PRODUCTION
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED
(1984-85 = 100)



Source: ABS 8125.0, Quarterly data

INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1984-85 PRICES
(1984-85 = 100.0)

Period	Mining (excluding services to mining)	Manufacturing	Electricity, gas and water	Total (a)
ANNUAL				
1986-87	107.7	103.8	107.1	105.2
1987-88	118.9	110.3	112.7	112.7
1988-89	118.5	116.9	118.2	117.4
1989-90	132.0	120.3	123.5	123.6
1990-91	135.5	114.1	126.8	121.0
1991-92	138.0	110.6	128.4	119.6
QUARTERLY — SEASONALLY ADJUSTED				
1991—				
March	132.4	112.5	127.5	119.3
June	138.0	110.2	127.5	119.2
September	137.2	110.0	128.6	119.1
December	136.3	109.3	128.5	118.3
1992—				
March	137.2	109.5	128.3	118.7
June	141.1	110.1	128.4	120.0
September	139.7	109.8	129.5	119.7

(a) Total industrial production describes the sum of the three groups: mining excluding services to mining, manufacturing and electricity, gas and water.

Source: ABS, Quarterly Indexes of Industrial Production (8125.0).

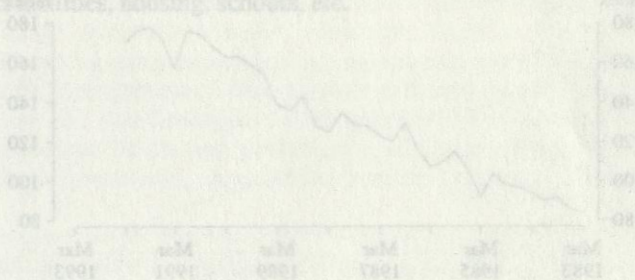
Explanatory Notes

The indexes of industrial production provide estimates of the rises and falls in output by the mining, manufacturing and electricity, gas and water industries.

The indexes are expressed in terms of constant prices. By eliminating the effects of price increases, the change in the real volume of output from industry groups can be determined.

Both the public and private sectors use the indexes to determine the level of economic activity at both an overall and broad industry level.

Where demand for products from a specific industry group increases, we would expect production to expand to meet the extra demand. The indexes reflect the growth and decline of output from specific industry groups.



Further Reading

- ☐ *Quarterly Indexes of Industrial Production, Australia* (8125.0)
Presents indexes of gross product at constant prices for the industrial sector and each of its major component industries i.e. mining, manufacturing and electricity gas and water. Also presents indexes for individual manufacturing subdivisions.
- ☐ *Constant Price Estimates of Manufacturing Production, Australia* (8211.0)
Contains annual constant price estimates of manufacturing gross product at factor cost.
- ☐ *Manufacturing Production, Australia, Preliminary* (8301.0)
Contains monthly estimates for 27 major production indicators.
- ☐ *Manufacturing Production, Australia: Principal Commodities Produced* (8365.0)
Contains statistics of quantities produced and the value of sales and transfers out of approximately 400 elected principle manufacturing commodities.

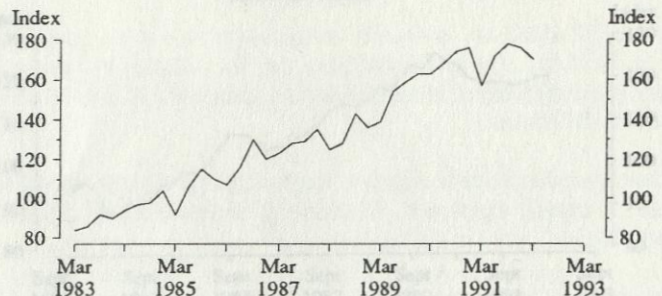
2.4.3

Mineral Production Indexes

Comment

The index for total mineral production increased strongly between 1983 and 1992. This growth was characterised by a series of sharp quarterly movements. While growth has varied from quarter to quarter and year to year, the overall picture is one of steady growth. This generally reflects continuing increases in the level of mineral production by the major mines in Australia, although the indexes for specific minerals have grown at different rates.

MINERAL PRODUCTION INDEX
(1984-85 = 100)



Source: Australian Mining Industry Council, Quarterly data

SELECTED MINERAL PRODUCTION INDEXES
(1984-85 = 100)

Period	Coal	Bauxite	Iron ore	Gold	Uranium	Total
ANNUAL						
1986-87	129	94	99	193	105	125
1987-88	120	103	104	275	97	129
1988-89	127	103	101	397	94	143
1989-90	143	112	114	498	95	163
1990-91	146	126	129	520	97	170
QUARTERLY						
1990—						
September	153	126	134	514	98	174
December	147	133	121	595	91	176
1991—						
March	128	122	136	476	89	157
June	157	124	126	494	110	172
September	153	124	131	516	115	178
December	152	122	143	516	98	176
1992—						
March	154	123	119	501	94	170

Source: Australian Mining Industry Council.

Explanatory Notes

Mineral production indexes give an indication of the rise and fall of the levels of output for major mine products in Australia. A rise in the indexes indicates an increase in the level of mineral production, a fall in the indexes indicates a fall in the level of mineral production.

The mining industry is an important contributor to national income and in particular to export income. Mineral resources make up approximately 8 per cent of Australia's gross domestic product and provide us with approximately 44 per cent of our export income.

The important position mining holds in the economy makes it essential for governments (Commonwealth and State) to keep track of developments in the industry. Governments are interested in the level of royalties they will receive, as well as in the export income that will be earned from mining. They are also concerned with developments in the industry for the purpose of planning services such as roads, railways, port facilities, housing, schools, etc.

Further Reading

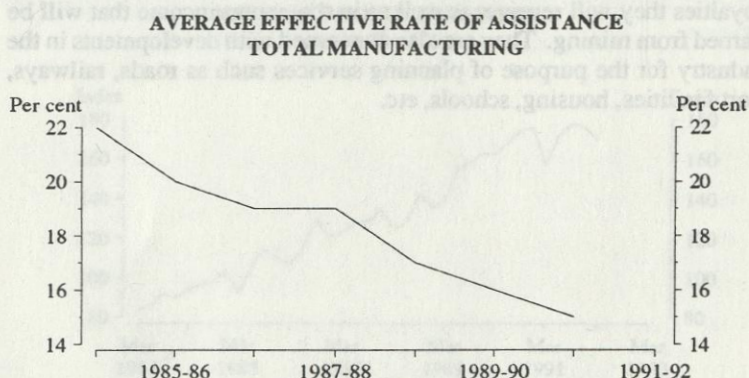
- ☐ *Australian Mining Industry Council Mineral Production Index*
Presents quarterly information on the mineral production index constructed by the Australian Mining Industry Council. (AMIC no longer publish this index).
- ☐ *Quarterly Indexes of Industrial Production (8125.0)*
Contains indexes of gross product at constant prices for the mining industry.
- ☐ *Mineral Production, Australia (8405.0)*
Contains quantity and value of production of major metallic and non-metallic minerals, as well as comparative world statistics for selected minerals.

2.4.4

Effective Rate of Assistance

Comment

The average effective rate of assistance for the manufacturing sector has declined from 22.0 per cent in 1984-85 to 15.0 per cent in 1990-91. The decrease was greatest between 1987-88 and 1988-89, falling from 19.0 per cent to 17.0 per cent. The overall decline temporarily halted between 1986-87 and 1987-88 when the average effective rate of assistance remained at 19.0 per cent



Source: Industry Commission Annual Report, Annual data

**AVERAGE EFFECTIVE RATES OF ASSISTANCE TO SELECTED INDUSTRY SECTORS
(per cent)**

<i>Period</i>	<i>Agriculture</i>	<i>Manufacturing (a)</i>	<i>Mining</i>
	ANNUAL		
1985-86	12.0	20.0	n.a.
1986-87	18.0	19.0	n.a.
1987-88	12.0	19.0	n.a.
1988-89	7.9	17.0	-3.2
1989-90	8.3	16.0	-3.0
1990-91	15.0	15.0	-2.8

(a) Assistance to an activity, net of the effects of tariffs and certain other forms of government intervention which alter the prices of material inputs used by the industry.

Source: Industry Commission Annual Report.

Explanatory Notes

The Industry Commission measures assistance provided to Australian industries by the Commonwealth Government.

The effective rate of assistance is an indicator of the net assistance to an industry. It is the percentage by which returns to resources (i.e. land, labour and capital) used in an industry are increased by assistance. It takes into account the assistance provided to an industry, less the extra costs the industry must pay for its inputs as a result of assistance to other industries.

The effective rate of assistance is positive if benefits provided by government to an industry outweigh costs imposed to that industry by government assistance to other industries. When the effective rate of assistance is negative, the benefits the industry receives from government assistance are outweighed by the extra costs it must pay for its inputs as a result of assistance to other industries.

The Commission's estimates of assistance include assistance provided by tariffs, quantitative import restrictions, bounties, export incentives and local content schemes and, for agricultural commodities, domestic pricing arrangements. Due to their differing impacts on particular sectors and data limitations, some other forms of assistance, such as government purchasing preferences, offset arrangements and anti-dumping procedures, are excluded from the Commission's estimates.

The Government uses the effective rate of assistance to determine how much assistance is actually provided to an industry. When the Government formulates policy on protection for an industry, it must take into account the effect that the assistance will have on other industries. Lobby groups use effective rate of assistance estimates to argue for increases or decreases in industry protection.

Further Reading

- ☐ Industry Commission, *Annual Report*
Contains the average effective rate of assistance, analysis of recent movements, and explanatory notes.

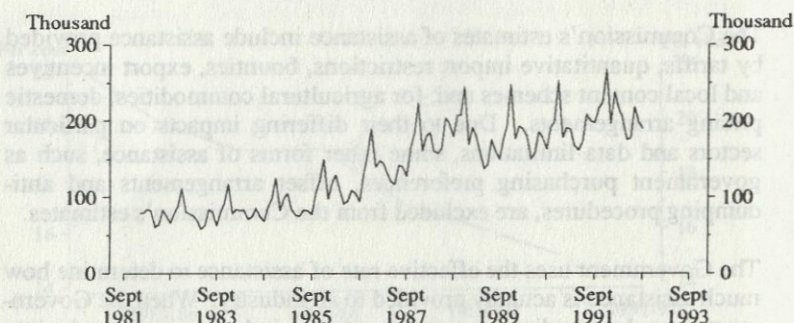
2.4.5

Tourism

Comment

The number of short-term overseas visitors coming into Australia is continuing to increase. The number of short-term visitors showed strong improvement during Australia's 1988 Bicentenary celebrations. Since 1988, the number of short-term overseas visitors has steadied, but remains significantly higher than the pre-1988 figures. Hotels, motels and guest houses are a major provider of short-term, commercial accommodation in Australia. In the June quarter 1992, there were 164,739 hotel, motel and guest house rooms available compared with 33,147 holiday flats and units.

SHORT-TERM OVERSEAS VISITOR ARRIVALS



Source: ABS 3401.0, Monthly data

TOURISM

Period	Capacity – hotels, motels and guest houses (guest rooms) (a) (b)	Capacity – holiday flats, units and houses (number) (a)	Room occupancy rates – hotels, motels and guest houses (b) (c) (%)	Unit occupancy rates – holiday flats, units and houses (c) (%)	Number of short-term overseas visitors (d) ('000)
ANNUAL					
1986–87	123,364	n.a.	55.9	n.a.	1,589.5
1987–88	131,510	29,533	56.3	56.6	1,990.5
1988–89	142,662	31,012	56.0	55.7	2,220.3
1989–90	150,686	32,137	52.7	50.4	2,147.2
1990–91	158,608	32,313	50.1	48.7	2,227.4
1991–92	164,739	33,147	50.3	50.3	2,519.7
MONTHLY					
1991—					
April	n.a.	n.a.	49.9	46.5	168.0
May	n.a.	n.a.	46.3	36.9	161.4
June	158,608	32,313	46.6	42.0	172.2
1992—					
April	n.a.	n.a.	52.0	48.8	203.8
May	n.a.	n.a.	47.5	37.7	175.2
June	164,739	33,147	46.0	39.8	176.9

(a) All annual data are end of period. Sub annual data refers to quarterly data as monthly data is not available. (b) Licensed hotels with facilities, motels and guest houses with facilities. (c) All annual data are annual averages. (d) Figures for short-term movement are based on a sample and are subject to sampling error.

Sources: ABS, *Tourist Accommodation, Australia* (8635.0) and *Overseas Arrivals and Departures, Australia* (3401.0).

Explanatory Notes

Tourism is short-term travel away from the normal place of work and residence. This includes both domestic and international travel. Tourists spend money on a wide range of goods and services provided by many businesses.

Domestic tourism is the largest contributor to Australia's overall tourist market. If Australians holiday in Australia rather than going overseas, they spend money in Australia instead of overseas.

International tourism earns Australia foreign exchange. When tourists from overseas spend money in Australia, their currency is exchanged for Australian dollars. The foreign exchange earned from tourism can be used to finance imports and to service foreign debt.

The foreign exchange earned from tourism in Australia now exceeds earnings from many of Australia's more traditional export commodities. Tourism is seen as a growth industry which could play a role in securing Australia's future prosperity.

In order to identify the market that exists for Australia as a tourist destination, statistics on the country of residence of our international tourists are collected. This information is used to market and tailor our goods and services accordingly.

Statistics are collected on the capacity, occupancy rates and takings of tourist accommodation. The statistics are collected in order to observe the level of activity in the industry, geographical trends and seasonal trends. The information is used by government and private bodies to plan investment, marketing and policy for the tourism industry.

Further Reading

- ☐ *Directory of Tourism Statistics* (1130.0)
Contains comprehensive information on sources of tourism statistics together with brief articles showing how each source may be used in relation to tourism.
- ☐ *Overseas Arrivals and Departures, Australia* (3402.0)
Provides a summary of quarterly data for all movements into and out of Australia. This includes details of overseas visitors by country of residence as well as other information.
- ☐ *Tourist Accommodation, Australia* (8635.0)
Contains quarterly data about establishments providing short-term accommodation for each State and Territory and Australia.
- ☐ *Tourist Attractions* (8661.0)
Provides for each State and Territory the number of attractions and visitors to those attractions.

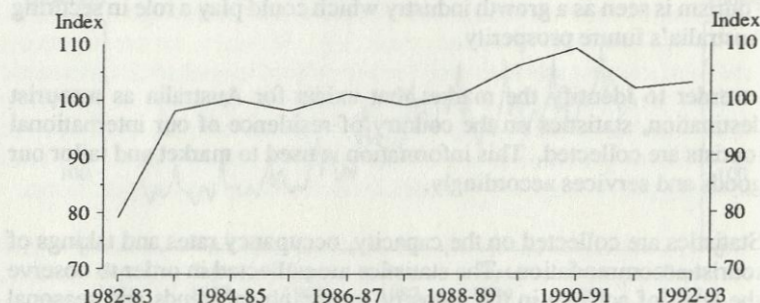
2.4.6

Volume of Farm Production

Comment

The total farm production volume index grew strongly between 1982-83 and 1983-84. This reflected good conditions in the rural sector which resulted in increased production levels. For the 5 years between 1983-84 and 1988-89 the volume of rural production remained static before rising to a peak in 1990-91 then returning towards previous levels.

VOLUME OF TOTAL FARM PRODUCTION INDEX (a)
(1984-85=100)



(a) Preliminary for 1991-92; forecast for 1992-93.
Source: ABARE

VOLUME OF FARM PRODUCTION INDEXES (a)
(1984-85 = 100.0)

Period	Crops	Livestock slaughterings	Livestock products	Total farm
ANNUAL				
1987-88	85	117	108	99
1988-89	89	112	112	101
1989-90	89	121	124	106
1990-91	94	124	122	109
1991-92	86	126	107	102
1992-93	92	123	103	103

(a) Preliminary for 1991-92; forecast for 1992-93.
Source: ABARE.

Explanatory Notes

A large share of Australia's total export income is generated from industries in the farm sector. The prosperity of farm industries therefore has a significant impact on incomes in the rest of the economy.

Economic performance of the farm sector can be measured by the volume of farm production, which is produced in the form of an index by the Australian Bureau of Agricultural and Resource Economics (ABARE). The farm production index is broken into three categories: crops, livestock slaughtering and livestock products. Changes in the production of farm products which make up these categories cause the index to rise or fall, depending on whether production increases or decreases.

A rise in the volume of production is not always in the best interest of the producer. When a commodity has a large share of the world market, an increase in supply causes a fall in the price of the commodity, unless demand also increases.

The majority of Australia's farm commodities do not have a large share of the world market. The quantity of these commodities exported can increase without having a significant effect on the supply of the commodity on the world market and therefore no effect on the price received.

The Government and producer groups use the volume of farm production to estimate farm incomes. This information is used to formulate policy for farm industries and the general economy.

Further Reading

- ☐ *Agriculture and Resources Quarterly*
Contains Australian Bureau of Agricultural and Resource Economics (ABARE) forecast and historical data for agriculture and resource commodities. Includes data on quantity and value of production, quantity and value of exports, value of imports of selected commodities, annual and quarterly prices and world production and consumption, stocks and trade for selected commodities.

Volume of Part: Probit 1990

has a significant impact on the economy.



2.5.8 Company Profits

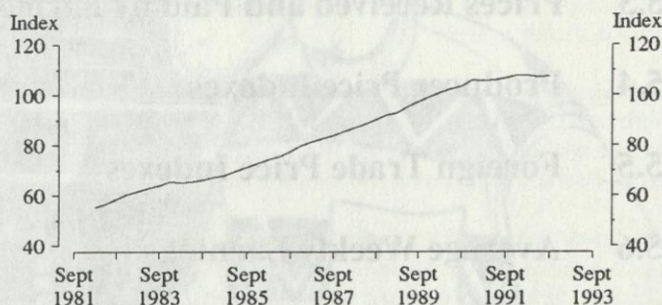
2.5.1

Consumer Price Index

Comment

The Consumer Price Index (CPI) generally increased between the March quarter 1982 and the December quarter 1990. This increase slowed dramatically during 1991 and 1992, with decreases in the CPI recorded in the March quarter 1991 and June quarter 1992.

CONSUMER PRICE INDEX: ALL GROUPS
(1989-90=100)



Source: ABS 6401.0, Quarterly data

CONSUMER PRICE INDEX: SELECTED GROUPS (a)
(1989-90 = 100.0)

Period	Food	Clothing	Housing	All groups
ANNUAL				
1986-87	81.1	82.3	72.2	80.3
1987-88	85.3	88.8	77.2	86.3
1988-89	93.4	95.1	86.9	92.6
1989-90	100.0	100.0	100.0	100.0
1990-91	103.3	104.6	103.5	105.3
1991-92	105.8	106.4	98.9	107.3
QUARTERLY				
1991—				
March	104.7	104.9	103.0	105.8
June	104.3	106.4	103.0	106.0
September	105.0	106.0	100.9	106.6
December	105.5	106.5	100.4	107.6
1992—				
March	106.1	106.3	98.1	107.6
June	106.4	106.8	96.2	107.3
September	106.0	106.6	94.6	107.4

(a) Weighted average of eight capital cities.

Source: ABS, Consumer Price Index (6401.0).

Explanatory Notes

The Consumer Price Index (CPI) is a general indicator of the rate of change in prices paid by household consumers for the goods and services they buy. The simplest way of thinking about the CPI is to imagine a *basket of goods and services* of the kind bought by Australian households. As prices vary, the total price of this basket will also vary.

This basket of goods and services has been selected to represent purchases by metropolitan employee households and covers expenditure on the following broad items: food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care as well as recreation and education. To ensure the basket remains representative of current spending habits, it is revised every 5 years.

The price of the CPI basket in the base period (currently 1989-90) is assigned a value of 100 and prices in other periods are expressed as percentages of the price in the base period. For example, if the price of the basket had increased by 15 per cent since the base period the CPI would read 115.0.

The actual index number for any given period is therefore equal to:

$$\frac{\text{total cost of fixed basket in given period}}{\text{total cost of fixed basket in reference base period}} \times 100$$

The CPI has always been an important economic indicator and in recent years actions related to movements in the CPI have had direct or indirect effects on all Australians. For example, it has been used as a starting point in wage negotiations, to adjust Social Security and superannuation payments and in a range of business contracts.

The CPI is often loosely referred to as a "cost of living index" but strictly speaking this is not correct. A true cost of living index, among other things, would need to take into account changes in standards of living and the substitutions that consumers make in order to maintain their standard of living in the face of changing market conditions (for instance, buying chicken instead of beef when beef prices are high). In contrast, the CPI assumes the purchase of a constant basket of goods and services and measures changes in the price of the goods and services in that basket alone.

Further Reading

- ☐ *Consumer Price Index* (6401.0)
Presents quarterly movements in retail prices of goods and services commonly purchased by metropolitan wage and salary earners. Indexes are published for each of the State capitals, Canberra and Darwin.
- ☐ *A Guide to the Consumer Price Index* (6440.0)
Contains information designed to promote the understanding of the CPI among general users.
- ☐ *Information Paper: Review of the Consumer Price Index* (6450.0)
Explains the review and re-weighting of the CPI, which was to be completed during 1992.

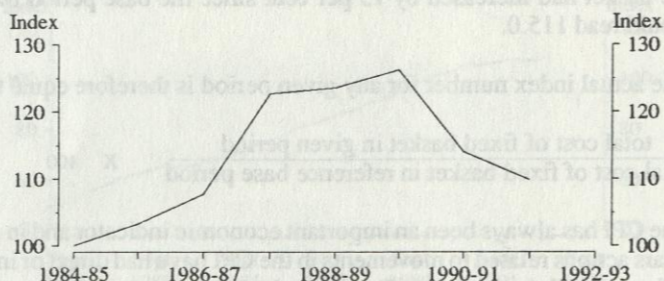
2.5.2

RBA Commodity Price Index

Comment

The RBA index of commodity prices increased significantly between 1984-85 and 1989-90. The most substantial part of this increase occurred in the 1987-88 financial year. This reflects the general increase in prices received for our commodity exports. Since 1989-90 the prices received for our exports have declined significantly. The decline in the index of commodity prices has been less dramatic since 1990-91.

RBA INDEX OF COMMODITY PRICES
(1984-85 = 100)



Source: Reserve Bank of Australia Bulletin, Monthly data

RBA INDEX OF COMMODITY PRICES (a)
(1984-85 = 100.0)

Period	All items
ANNUAL	
1986-87	107.8
1987-88	122.7
1988-89	123.6
1989-90	126.2
1990-91	114.0
1991-92	109.9

(a) Monthly average data.

Source: Reserve Bank of Australia Bulletin.

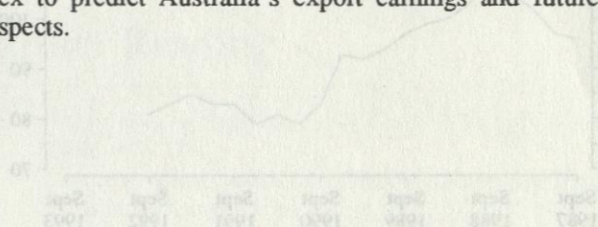
Explanatory Notes

The Reserve Bank of Australia (RBA) developed the commodity price index to provide an early indication of trends in Australia's export prices.

There are 19 commodities included in the index representing approximately two-thirds of Australia's commodity exports and just over half of total merchandise exports. The commodities are weighted according to their share of exports by volume over the previous 12 months. The weights given to each commodity can vary over time to allow for changes in the composition of exports.

Rural and non-rural components are calculated as well as total commodities. Rural commodities make up approximately one-third of the index, with wool, wheat and beef being the main rural commodities. Non-rural commodities make up the rest of the index, with coking and steaming coal, iron ore and gold being the main non-rural commodities.

The Government and private enterprise use the RBA commodity price index to predict Australia's export earnings and future economic prospects.



INDEX OF PRICES RECEIVED AND PAID BY FARMERS
(1987-88 = 100)

Further Reading

- ☐ *Reserve Bank of Australia Bulletin*
Presents monthly estimates for the Reserve Bank of Australia commodity price index for rural, non-rural and all items. See articles in the December 1987 and February 1989 issues for explanations of the index.
- ☐ *Reserve Bank of Australia Index of Commodity Prices*
Monthly Reserve Bank of Australia press release containing the commodity price index.

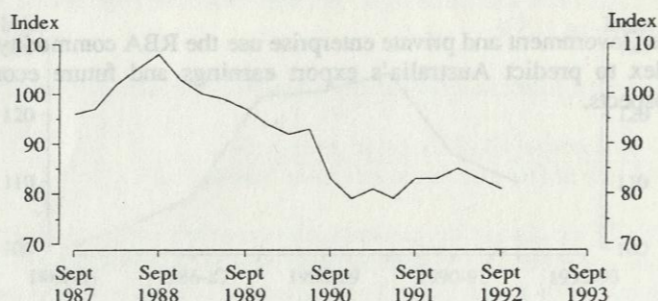
2.5.3

Prices Received and Paid by Farmers

Comment

Between the September quarter 1988 and December quarter 1990, the gap between prices received by farmers and prices paid by farmers widened dramatically, resulting in a sharp decline in the farmers' terms of trade. Between the September quarter 1990 and December quarter 1991, the farmers' terms of trade stabilized, fluctuating within a band of 4 index points. Since the March quarter 1991 the farmers' terms of trade has been slowly decreasing.

FARMERS' TERMS OF TRADE INDEX
(1987-88 = 100)



Source: ABARE

INDEXES OF PRICES RECEIVED AND PAID BY FARMERS
(1987-88 = 100.0)

Period	Prices received	Prices paid	Farmers' terms of trade (a)
ANNUAL			
1986-87	85.2	95.9	88.8
1987-88	100.0	100.0	100.0
1988-89	111.8	109.0	102.5
1989-90	109.1	116.2	93.9
1990-91	94.6	117.4	80.6
1991-92	97.0	116.3	83.4
QUARTERLY — ORIGINAL			
1991—			
March	94.1	116.3	81.0
June	92.4	116.5	79.3
September	97.3	116.6	83.4
December	96.4	116.2	83.0
1992—			
March	98.7	116.5	84.7
June	95.7	115.7	82.7
September	93.1	115.0	81.0

(a) Ratio of index of prices received by farmers to the index of prices paid by farmers.

Source: ABARE, *Indexes of Prices Received and Paid by Farmers*.

Explanatory Notes

The Australian Bureau of Agricultural and Resource Economics (ABARE) produces indexes of prices received and prices paid by farmers. The indexes measure movements in the price of fixed baskets of goods and services that farmers sell and purchase respectively.

The prices received and paid by farmers indexes are not indicators of farmers' incomes or costs, but are used to determine farmers' terms of trade. Farmers' terms of trade is equal to the ratio of prices received to prices paid. Farmers experience a rise in their terms of trade when the prices they receive increase, and the prices they pay remain constant or fall. Farmers experience a fall in their terms of trade when the prices they pay increase, and the prices they receive fall or remain constant.

ABARE use farmers' terms of trade along with other information to assist in the projection of income levels for producers of specific commodities. The Government uses the forecasts to formulate economic policy regarding marketing of primary products, guaranteed prices, subsidies to primary producers and overseas trade policy.

Further Reading

Further Reading

- ☐ *Indexes of Prices Received and Paid by Farmers*
Contains Australian Bureau of Agricultural and Resource Economics (ABARE) quarterly indexes of the prices received and paid by farmers, at the Australian and State level, as well as explanatory notes on the indexes themselves.
- ☐ *Agriculture and Resources Quarterly*
Contains Australian Bureau of Agricultural and Resource Economics (ABARE) forecast and historical data for agriculture and resource commodities. Includes data on quantity and value of production, quantity and value of exports, value of imports of selected commodities, annual and quarterly prices and world production and consumption, stocks and trade for selected commodities.

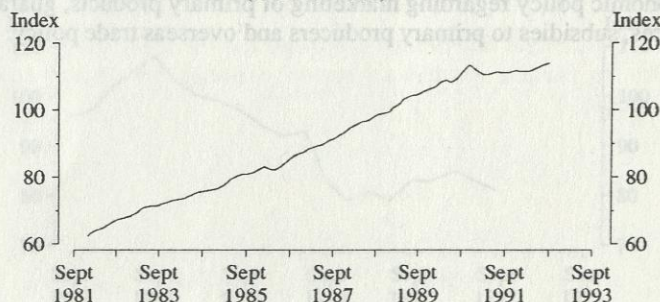
2.5.4

Producer Price Indexes

Comment

The price index of articles produced by the manufacturing industry displayed steady growth between 1982 and 1990. This growth decreased slightly for a short period in 1986, but by the end of 1986, growth was occurring at a faster rate than previously. The index also declined over the period December 1990 to March 1991. Since then, the index has remained relatively static.

PRICE INDEX OF ARTICLES PRODUCED BY
THE MANUFACTURING INDUSTRY
(1988-89 = 100)



Source: ABS 6412.0, Monthly data

SELECTED PRODUCER PRICE INDEXES: ALL GROUPS

Period	Price index of materials used in building (other than house building) (a)	Price index of materials used in house building (b)	Price index of materials used in manufacturing (c)	Price index of articles produced by manufacturing (d)
ANNUAL				
1986-87	180.9	105.8	105.6	87.2
1987-88	196.8	113.8	111.4	93.6
1988-89	214.9	126.1	113.1	100.0
1989-90	231.9	135.8	119.0	106.5
1990-91	243.7	142.1	123.8	111.2
1991-92	245.2	142.4	120.7	111.6
MONTHLY				
1991—				
July	246.0	142.8	120.4	111.4
August	245.7	142.9	119.9	111.2
September	246.1	142.7	118.3	111.1
1992—				
July	244.6	143.2	126.2	113.2
August	245.0	143.5	127.1	113.6
September	244.7	143.5	126.9	114.0

(a) Base year 1979-80 = 100.0. (b) Base year 1985-86 = 100.0. (c) Base year 1984-85 = 100.0. (d) Base year 1988-89 = 100.0.

Source: ABS, Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0), Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0), Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0) and Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0).

Explanatory Notes

Producer price indexes measure movements in the prices of goods moving between sectors of the Australian economy. They are important economic indicators.

The indexes relate to three broad sectors of the Australian economy; building industry, manufacturing industry and the coal mining industry. The producer price indexes measure changes in prices of materials used in the production processes for each of the sectors, as well as articles produced by the manufacturing sector.

Most of the prices used in the indexes are collected as at the mid-point of each month. They reflect, as far as possible, actual transaction prices, including all forms of discounting.

The indexes are used by both the public and private sectors, primarily for adjusting business contracts, as well as for economic analysis.

Further Reading

- ☐ *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0)*
Contains measurements of monthly price movements of materials delivered on site for use in the construction of buildings other than houses.
- ☐ *Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0)*
Contains measurements of monthly price movements of materials delivered on site for use in the construction of houses.
- ☐ *Price Indexes of Copper Materials, Australia (6410.0)*
Presents indexes which measure price movements in copper materials used in the manufacture of electrical equipment.
- ☐ *Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0)*
Contains indexes which measure the price movements of materials and fuels used by establishments engaged in manufacturing.
- ☐ *Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)*
Contains indexes which measure the price movements of articles produced by establishments engaged in manufacturing.
- ☐ *Price Indexes of Materials Used in Coal Mining, Australia (6415.0)*
Contains measurements of price movements used in the mining of coal, for both underground mining and open-cut mining.
- ☐ *Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods (6419.0)*
Provides a comprehensive description of producer price indexes.

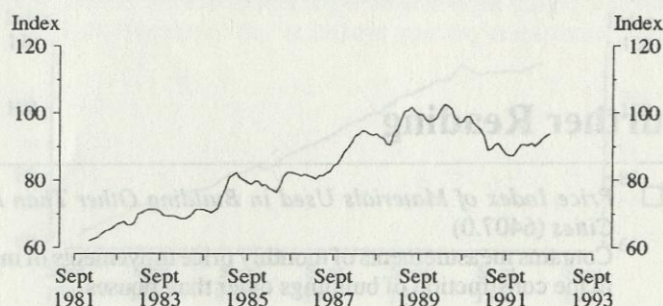
2.5.5

Foreign Trade Price Indexes

Comment

Between 1982 and 1983, the export price index recorded relatively constant and upward movement. From 1983 until the beginning of 1985, the export price index showed little net movement. Since then, the movement in the export price index has been more variable, but with an underlying upward trend until the beginning of the 1990s. Between 1990 and 1991, the export price index generally fell. During 1992, the export price index has again increased.

EXPORT PRICE INDEX
(1989-90 = 100)



Source: ABS 6405.0, Monthly data

FOREIGN TRADE PRICE INDEXES: ALL GROUPS
(1989-90 = 100.0)

Period	Export price index	Import price index
ANNUAL		
1986-87	81.6	100.3
1987-88	88.9	101.8
1988-89	94.7	95.3
1989-90	100.0	100.0
1990-91	95.0	103.2
1991-92	89.6	102.7
MONTHLY		
1991—		
July	90.9	101.6
August	89.2	101.2
September	87.7	100.6
1992—		
July	92.3	107.0
August	93.3	109.2
September	93.8	110.0

Source: ABS, Export Price Index, Australia (6405.0) and Import Price Index, Australia (6414.0).

Explanatory Notes

Foreign trade price indexes measure the price of goods leaving and entering Australia. There are two foreign trade price indexes, the export price index and the import price index.

The export price index measures changes in the prices of exports of merchandise from Australia. The import price index measures changes in prices of imports of merchandise into Australia.

In general, prices are obtained from major exporters and importers of the selected commodities included in each index. The prices used in the indexes relate to the month in which the goods physically leave and enter Australia. They are collected on a free on board (f.o.b.) basis. Freight and insurance charges involved in shipping the goods to and from Australian ports are excluded.

The prices used in both the export and import indexes are expressed in Australian dollars. For this reason changes in the relative value of the Australian dollar against overseas currencies will affect both price indexes. The import and export price indexes rise when the Australian dollar depreciates, and fall when the Australian dollar appreciates.

The indexes are used by both the government and private sectors for both economic analysis and adjusting business contracts. The indexes are also used as input into other ABS statistics, such as constant price estimates of the national accounts.

Further Reading

- ☐ *Export Price Index, Australia (6405.0)*
Measures free on board Australian port-of-origin price movements for merchandise exports.
- ☐ *Import Price Index, Australia (6414.0)*
Measures changes in free on board country-of-origin price movements of imports of merchandise into Australia.
- ☐ *Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods (6419.0)*
Provides a comprehensive description of the foreign trade price indexes.

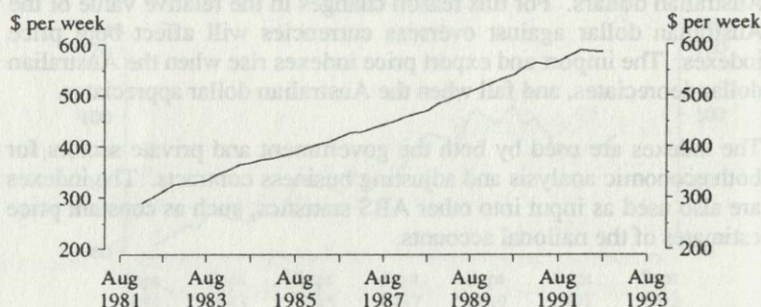
2.5.6

Average Weekly Earnings

Comment

Average weekly earnings showed relatively constant growth during the 1980s. In 1991, average weekly earnings began to flatten out. In part, the flattening in average weekly earnings occurred as businesses restructured resulting in the loss of some lower paid staff. This had the effect of changing the composition of the labour force as well as increasing the average weekly earnings of employees.

**FULL-TIME ADULT AVERAGE WEEKLY ORDINARY
TIME EARNINGS - PERSONS**



Source: ABS 6302.0, Quarterly data

**FULL-TIME ADULT AVERAGE WEEKLY ORDINARY TIME EARNINGS
(\$ per week)**

Period	Males	Females	Persons
ANNUAL AVERAGE (a)			
1986-87	452.95	373.75	427.98
1987-88	481.23	398.08	454.48
1988-89	515.70	428.48	487.30
1989-90	552.18	458.28	520.95
1990-91	588.25	491.38	555.40
1991-92	615.43	516.20	580.75
QUARTERLY			
1991—			
February	597.70	499.80	564.20
May	592.00	500.50	560.80
August	599.50	506.40	567.70
November	612.20	514.80	578.80
1992—			
February	625.20	523.90	589.20
May	624.80	519.70	587.30
August	623.20	518.70	585.80

(a) Derived as annual average of average weekly earnings in the specified pay period in each quarter.

Source: ABS, Average Weekly Earnings, States and Australia (6302.0).

Explanatory Notes

The ABS collects information from approximately 4,800 employers every quarter to determine estimates of average weekly earnings. Employers are asked to provide details of the total gross weekly earnings paid to employees (including weekly overtime earnings) and the number of employees involved (split into full-time adults and all other employees, by males and females).

The most obvious change in average weekly earnings occurs when wages have increased or decreased as a result of National Wage increases, or agreements between employers and employees, or because of changes to award conditions.

A change in average weekly earnings is not necessarily a reflection of changes in wages but may be due to changes in the composition of the wage and salary earner segment of the labour force. Changes in the type of employment (part-time, full-time), the age of the workforce, the occupational make-up of the workforce and the amount of overtime all affect average weekly earnings.

If average weekly earnings increase while the level of employment and composition of the wages and salary segment of the labour force remain the same, expenditure on wages rises. If the increase in expenditure on wages is not accompanied by an increase in production, labour costs per unit of output produced will rise.

Governments, unions, employer groups, researchers and private bodies use average weekly earnings as a guide to changes in the labour market, and as an indicator of the level of economic activity. Average weekly ordinary time earnings is used in some contracts to adjust for increases in labour costs.

Further Reading

- ☐ *Average Weekly Earnings, States and Australia (6302.0)*
Contains preliminary quarterly estimates of average weekly ordinary time earnings and average weekly total earnings for full-time adult employees and average weekly total earnings for all employees, males, females and persons, classified by sector and State and Territory, by sex.
- ☐ *Average Weekly Earnings of Employees, Australia (6304.0)*
Contains results of a survey on average weekly earnings, classified by sex, adult/junior, industry, State and Territory, ordinary/overtime and full-time or part-time status. This series was discontinued with publication of the November 1991 results.
- ☐ *Average Weekly Earnings (6350.0)*
Contains an historical series of average weekly earnings for all males for Australia from the September quarter 1941 to November 1990, as well as average weekly earnings estimates for all employees from September quarter 1981, classified by a number of variables.

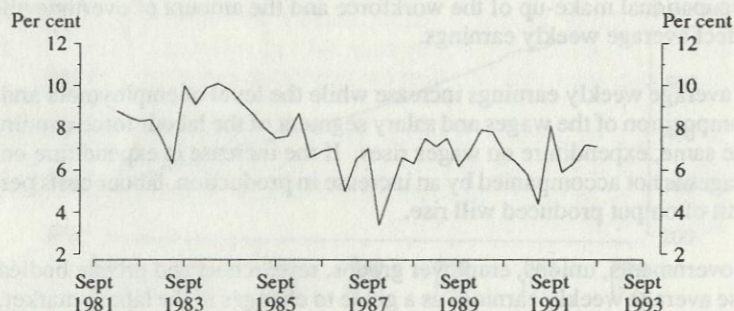
2.5.7

Saving

Comment

The seasonally adjusted household saving ratio has remained low throughout the 1980s and 1990s. The household saving ratio remained around 10 per cent during the 1983–84 financial year, and then fell to a low of 3.4 per cent in the December quarter 1987. After the December quarter 1987, the household saving ratio has been variable around the level achieved in the late 1980s.

HOUSEHOLD SAVING RATIO
SEASONALLY ADJUSTED



Source: ABS 5206.0, Quarterly data

HOUSEHOLD SAVING

Period	Saving (a) (\$m)	Household disposable income (\$m)	Household saving ratio (%)
ANNUAL			
1986–87	10,815	168,314	6.4
1987–88	10,210	185,837	5.5
1988–89	14,413	209,129	6.9
1989–90	15,226	231,713	6.6
1990–91	13,652	242,240	5.6
1991–92	16,886	256,770	6.6
QUARTERLY — SEASONALLY ADJUSTED			
1991—			
March	3,548	60,868	5.8
June	2,669	60,583	4.4
September	5,188	63,989	8.1
December	3,710	63,295	5.9
1992—			
March	4,096	64,647	6.3
June	4,727	65,769	7.2
September	4,655	66,012	7.1

(a) Saving is derived as a balancing item.

Source: ABS, Australian National Accounts: National Income, Expenditure and Product (5206.0).

Explanatory Notes

Saving is the excess of income over outlays for each sector in the economy during a given period. Saving can be seen as giving up current consumption to derive a future benefit because it is used to finance investment which, at the national level, will increase the productive capacity to produce a greater quantity of goods and services in the future.

Household disposable income is the amount of income that households have available for spending after deducting from total income any taxes paid, interest payments and transfers to overseas. The ratio of household income saved to household disposable income is called the household saving ratio. Australia's household saving ratio has generally been on a downward trend since reaching a high point in the mid-1970s.

For businesses, saving is referred to as undistributed income or retained earnings. For governments, saving is referred to as the surplus on current transactions.

If total saving in the domestic economy from the above sources and from depreciation allowances (sometimes referred to as "consumption of fixed capital") is not enough to cover planned investment, then the nation must borrow from foreign countries to finance its investment. Historically, Australia has relied heavily on foreign borrowing to finance its investment. In effect, we have chosen to consume now rather than to save for investment.

Governments and private organisations are interested in changes in the level of saving because of the effect on investment and Australia's borrowing requirements from overseas.

Further Reading

- ☐ *Australian National Accounts: National Income, Expenditure and Product (5206.0)*
Contains quarterly data, including household income and expenditure, for the last 9 quarters. Measures of national saving and saving for individual institutional sector (government, businesses and households) are derived as balancing items in the income and outlay accounts of the national accounts.
- ☐ *Australian National Accounts: National Income, Expenditure and Product (5204.0)*
Contains annual data, including household income and expenditure, for the last 12 years.

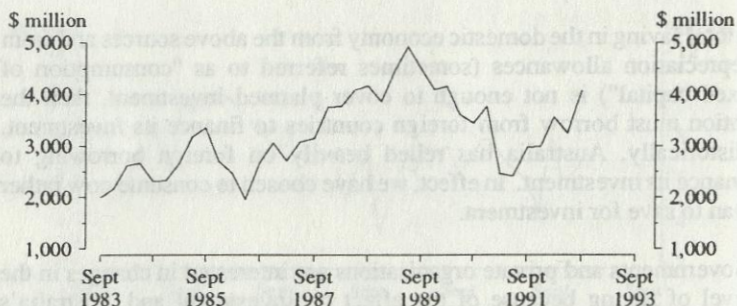
2.5.8

Company Profits

Comment

The seasonally adjusted estimate of company profits peaked in the June quarter 1989 after a period of strong growth which commenced in the June quarter 1986. After this peak, company profits fell sharply. This fall reflected the rapidly changing economic environment following the 1988 stock market crash. The volatile movement in company profits has continued with the latest figures indicating strong increases.

COMPANY PROFITS BEFORE TAX, BY BROAD INDUSTRY
SEASONALLY ADJUSTED



Source: ABS 5651.0, Quarterly data

COMPANY PROFITS BEFORE INCOME TAX (a)
(\$ million)

Period	Mining	Manufacturing	Wholesale and retail trade	Other selected industries	Total
ANNUAL					
1986-87	3,515	4,649	2,252	1,224	11,638
1987-88	3,816	6,613	2,716	1,511	14,656
1988-89	3,540	8,607	3,348	1,695	17,190
1989-90	5,043	7,766	2,905	620	16,333
1990-91	5,928	4,966	1,744	-331	12,307
1991-92	5,013	5,765	1,717	292	12,787
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	1,413	1,088	94	-133	2,464
June	1,354	1,146	39	-122	2,417
September	1,276	1,295	393	11	2,976
December	1,304	1,400	158	130	2,991
1992—					
March	1,334	1,638	410	182	3,563
June	1,098	1,506	662	-21	3,245
September	1,644	1,716	668	49	4,077

(a) Excluding public sector and unincorporated sector. Also excluding companies with 30 employees or fewer and all companies classified to agriculture, forestry, fishing, hunting, banking, non-bank finance, insurance, unit trusts, land trusts, mutual funds and community services.

Source: ABS, *Company Profits, Australia* (5651.0).

Explanatory Notes

Company profits are defined as net operating profits or losses before income tax.

Statistics on company profits are collected quarterly by broad industry. Also collected in the survey of company profits are depreciation of fixed assets and net interest paid. Industries included are mining, manufacturing, wholesale and retail trade and other selected industries. Companies excluded are those primarily engaged in agriculture, forestry, fishing and hunting, banking, non-bank finance, unit trusts, land trusts, mutual funds, insurance and community services activities.

The data relates to companies employing more than 30 people. Smaller companies are excluded because they account for only about 10 per cent of total profits.

The Government and private bodies use statistics on company profits as a short-term indicator of economic activity. During periods of economic growth we expect a higher level of company profits than in periods of economic decline.

Further Reading

- ☐ *Company Profits, Australia* (5651.0)
Contains quarterly estimates of company profits of selected incorporated business enterprises. The data is presented by industry, and expressed in original, seasonally adjusted and trend terms.
- ☐ *Economy Wide Statistics, Australia, Preliminary* (8140.0)
Presents economic statistics based on profit and loss statements and balance sheet accounts of businesses in all industries of the Australian economy. Included is a measure of net profit and profitability.



Further Reading		Further Reading	
1. The	2. The	3. The	4. The
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Section 2.6

Labour Force and Demography

2.6.1 Employment

2.6.2 Employed Persons by Industry

2.6.3 Unemployment

2.6.4 Job Vacancies

2.6.5 Industrial Disputes

2.6.6 Population

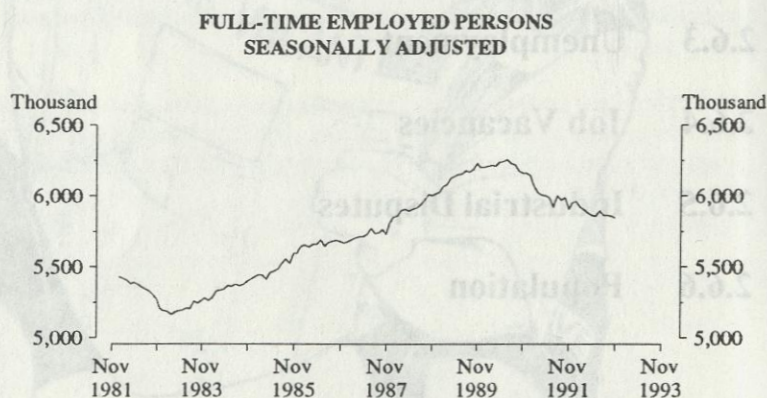
Further Reading			
Period	15-19 years	20+ years	Total
1980-81	411	2,150	2,561
1981-82	426	2,201	2,627
1982-83	446	2,291	2,737
1983-84	457	2,382	2,839
1984-85	472	2,473	2,945
1985-86	487	2,564	3,051
1986-87	502	2,655	3,157
1987-88	517	2,746	3,263
1988-89	532	2,837	3,369
1989-90	547	2,928	3,475
1990-91	562	3,019	3,581
1991-92	577	3,110	3,687
1992-93	592	3,201	3,793
1993-94	607	3,292	3,899
1994-95	622	3,383	4,005
1995-96	637	3,474	4,111
1996-97	652	3,565	4,217
1997-98	667	3,656	4,323
1998-99	682	3,747	4,429
1999-00	697	3,838	4,535
2000-01	712	3,929	4,641
2001-02	727	4,020	4,747
2002-03	742	4,111	4,853
2003-04	757	4,202	4,959
2004-05	772	4,293	5,065
2005-06	787	4,384	5,171
2006-07	802	4,475	5,277
2007-08	817	4,566	5,383
2008-09	832	4,657	5,489
2009-10	847	4,748	5,595
2010-11	862	4,839	5,701
2011-12	877	4,930	5,807
2012-13	892	5,021	5,913
2013-14	907	5,112	6,019
2014-15	922	5,203	6,125
2015-16	937	5,294	6,231
2016-17	952	5,385	6,337
2017-18	967	5,476	6,443
2018-19	982	5,567	6,549
2019-20	997	5,658	6,655
2020-21	1,012	5,749	6,761
2021-22	1,027	5,840	6,867
2022-23	1,042	5,931	6,973
2023-24	1,057	6,022	7,079
2024-25	1,072	6,113	7,185
2025-26	1,087	6,204	7,291
2026-27	1,102	6,295	7,397
2027-28	1,117	6,386	7,503
2028-29	1,132	6,477	7,609
2029-30	1,147	6,568	7,715
2030-31	1,162	6,659	7,821
2031-32	1,177	6,750	7,927
2032-33	1,192	6,841	8,033
2033-34	1,207	6,932	8,139
2034-35	1,222	7,023	8,245
2035-36	1,237	7,114	8,351
2036-37	1,252	7,205	8,457
2037-38	1,267	7,296	8,563
2038-39	1,282	7,387	8,669
2039-40	1,297	7,478	8,775
2040-41	1,312	7,569	8,881
2041-42	1,327	7,660	8,987
2042-43	1,342	7,751	9,093
2043-44	1,357	7,842	9,199
2044-45	1,372	7,933	9,305
2045-46	1,387	8,024	9,411
2046-47	1,402	8,115	9,517
2047-48	1,417	8,206	9,623
2048-49	1,432	8,297	9,729
2049-50	1,447	8,388	9,835
2050-51	1,462	8,479	9,941
2051-52	1,477	8,570	10,047
2052-53	1,492	8,661	10,153
2053-54	1,507	8,752	10,259
2054-55	1,522	8,843	10,365
2055-56	1,537	8,934	10,471
2056-57	1,552	9,025	10,577
2057-58	1,567	9,116	10,683
2058-59	1,582	9,207	10,789
2059-60	1,597	9,298	10,895
2060-61	1,612	9,389	11,001
2061-62	1,627	9,480	11,107
2062-63	1,642	9,571	11,213
2063-64	1,657	9,662	11,319
2064-65	1,672	9,753	11,425
2065-66	1,687	9,844	11,531
2066-67	1,702	9,935	11,637
2067-68	1,717	10,026	11,743
2068-69	1,732	10,117	11,849
2069-70	1,747	10,208	11,955
2070-71	1,762	10,299	12,061
2071-72	1,777	10,390	12,167
2072-73	1,792	10,481	12,273
2073-74	1,807	10,572	12,379
2074-75	1,822	10,663	12,485
2075-76	1,837	10,754	12,591
2076-77	1,852	10,845	12,697
2077-78	1,867	10,936	12,803
2078-79	1,882	11,027	12,909
2079-80	1,897	11,118	13,015
2080-81	1,912	11,209	13,121
2081-82	1,927	11,300	13,227
2082-83	1,942	11,391	13,333
2083-84	1,957	11,482	13,439
2084-85	1,972	11,573	13,545
2085-86	1,987	11,664	13,651
2086-87	2,002	11,755	13,757
2087-88	2,017	11,846	13,863
2088-89	2,032	11,937	13,969
2089-90	2,047	12,028	14,075
2090-91	2,062	12,119	14,181
2091-92	2,077	12,210	14,287
2092-93	2,092	12,301	14,393
2093-94	2,107	12,392	14,499
2094-95	2,122	12,483	14,605
2095-96	2,137	12,574	14,711
2096-97	2,152	12,665	14,817
2097-98	2,167	12,756	14,923
2098-99	2,182	12,847	15,029
2099-00	2,197	12,938	15,135
2100-01	2,212	13,029	15,241

2.6.1

Employment

Comment

Following a downturn in 1982-83, the seasonally adjusted estimate of the number of full-time workers generally rose until mid-1990. Since then full-time employment has been falling, although in 1992 it has levelled out with some small rises and falls being recorded.



EMPLOYED PERSONS ('000)

Period	Full-time aged 15-19 years	Full-time aged 20+ years	Total full-time	Total part-time	Total
ANNUAL AVERAGE					
1986-87	431	5,258	5,689	1,355	7,044
1987-88	426	5,397	5,823	1,434	7,256
1988-89	446	5,591	6,036	1,515	7,551
1989-90	437	5,765	6,202	1,639	7,840
1990-91	359	5,760	6,119	1,690	7,809
1991-92	273	5,654	5,927	1,757	7,684
MONTHLY — SEASONALLY ADJUSTED					
1991—					
September	296	5,676	5,973	1,723	7,696
October	298	5,689	5,988	1,690	7,678
November	282	5,626	5,908	1,747	7,655
1992—					
September	249	5,614	5,863	1,826	7,688
October	250	5,610	5,860	1,854	7,715
November	248	5,596	5,845	1,792	7,636

Source: ABS, Unpublished data.

Explanatory Notes

Each month the ABS collects data on the number of employed and unemployed persons. This information is gathered from the Labour Force Survey, a monthly sample survey of private dwellings and non-private dwellings (e.g. hotels, motels).

The survey is used to determine the labour force status of the civilian population aged 15 years and over. Not included are members of the permanent defence forces, diplomatic and defence personnel from overseas countries and overseas residents in Australia. The Labour Force Survey classifies individuals as employed, unemployed or not in the labour force.

Employed persons are persons aged 15 years and over, who during the reference week, (a) worked one hour or more for payment of any kind or profit in a job, business or farm or (b) worked one hour or more or without pay in a family business or farm or (c) were employees who had a job but were not at work for various defined reasons or (d) were employers, self-employed persons or unpaid family helpers who had a job but were not at work. Full-time workers are employed persons who usually work more than 35 hours a week or did so during the reference week.

The level of employment is used by the Government, unions and welfare groups to assess policy requirements and options. Estimates of employment indicate trends in full-time and part-time employment, as well as trends in the age and sex of workers.

Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.
- ☐ *The Labour Force, Australia* (6203.0)
Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.
- ☐ Information Paper: *Measuring Employment and Unemployment* (6279.0)
Provides information about the monthly Labour Force Survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.

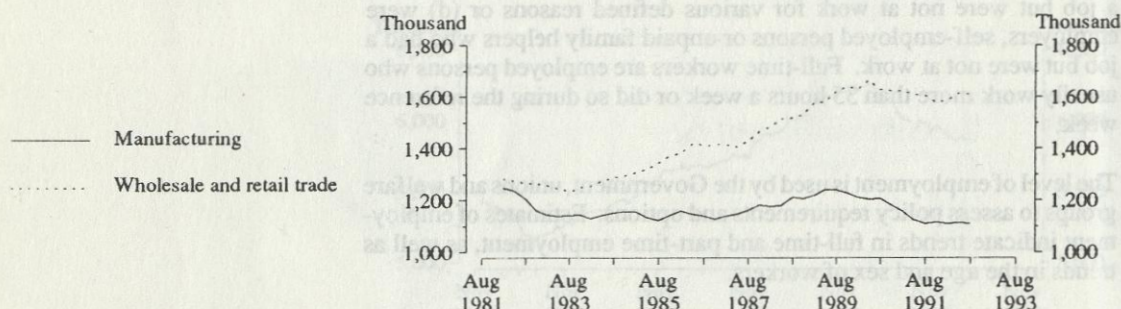
2.6.2

Employed Persons by Industry

Comment

During the 1980s, in seasonally adjusted terms, employment in the wholesale and retail industries grew significantly. Employment peaked in these industries in 1990 and has stabilised at this level. The number of persons employed in the manufacturing sector declined in the early 1980s but then experienced slow growth between November 1986 and August 1989. This growth in employment was only temporary and the number of persons employed in 1992 has declined to levels experienced in 1983.

EMPLOYED PERSONS BY SELECTED INDUSTRY
SEASONALLY ADJUSTED



Source: ABS 6203.0, Quarterly data

EMPLOYED PERSONS BY SELECTED INDUSTRY
(^{'000})

Period	Agriculture, forestry and fishing	Manufacturing	Wholesale and retail trade	Community services
ANNUAL AVERAGE				
1986-87	420.4	1,138.3	1,411.3	1,243.7
1987-88	416.7	1,174.6	1,473.9	1,266.2
1988-89	432.2	1,218.5	1,552.7	1,330.4
1989-90	425.7	1,220.8	1,640.7	1,367.9
1990-91	433.8	1,167.4	1,620.9	1,408.4
1991-92	409.0	1,111.6	1,596.5	1,452.7
QUARTERLY — SEASONALLY ADJUSTED				
1991—				
February	432.8	1,158.3	1,624.1	1,407.3
May	420.2	1,125.5	1,608.9	1,409.4
August	418.8	1,111.1	1,605.1	1,452.1
November	413.4	1,115.2	1,576.5	1,448.8
1992—				
February	410.1	1,109.3	1,590.0	1,475.7
May	393.5	1,111.2	1,614.7	1,435.3
August	409.9	1,109.9	1,609.0	1,477.2
November	409.2	1,134.5	1,573.3	1,437.8

Source: ABS, unpublished data.

Explanatory Notes

Statistics are collected on the number of people employed by industry as at the mid-month of each quarter. The information is collected through the Labour Force Survey, and is used to determine trends in the labour market.

The Labour Force Survey collects information on the respondent's main job. The activity of this person's employer at the location of their main job is classified into one of the following industry divisions: agriculture, forestry, fishing and hunting; mining; manufacturing; electricity, gas and water; construction; wholesale and retail trade; transport and storage; communication; finance, property and business services; public administration and defence; community services and recreation; and personal and other services.

Changes in the number of employees per industry can be a reflection of the level of economic activity. When an industry is expanding it will usually increase its number of employees. When an industry is contracting it will usually reduce the number of employees.

Changes in the structure of the industry will also affect the number of employees per industry. Technology and new work practices are common reasons for industries increasing or decreasing the number of people they employ.

The ABS also collects information on employment and earnings from a sample of employers. That survey provides employment statistics at industry, sector and State level.

Statistics on employed persons by industry are used by the government to plan for changes in the labour market by industry sector.

Further Reading

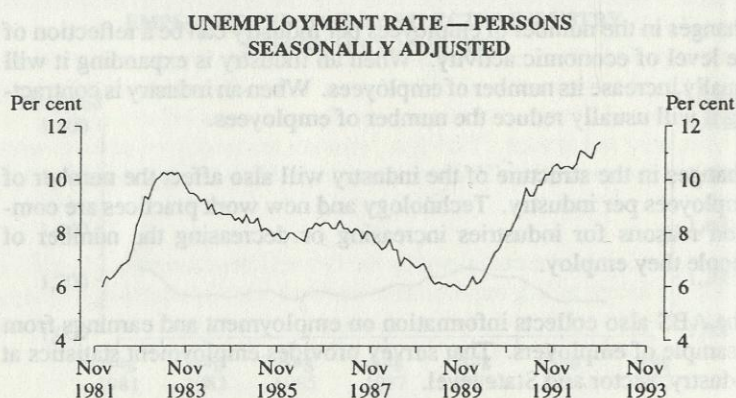
- ☐ *Labour Statistics, Australia* (6101.0)
Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.
- ☐ *The Labour Force, Australia* (6203.0)
Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.
- ☐ *Information Paper: Measuring Employment and Unemployment* (6279.0)
Provides information about the monthly Labour Force Survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.
- ☐ *Employed Wage and Salary Earners, Australia* (6248.0)
Contains estimates of employees by sex, full-time/part-time, industry and sector. Estimates of gross earnings classified by industry and sector are also shown. Estimates are available for Australia, States and Territories.

2.6.3

Unemployment

Comment

In seasonally adjusted terms, Australia's unemployment rate rose sharply during 1982. In 1983, the unemployment rate passed the 10 per cent mark and remained above 10 per cent for six months in 1983. After this, the rate generally decreased — during a period of strong economic growth in Australia. By the beginning of the 1990s, Australia's unemployment rate began to climb sharply. Australia's November 1992 unemployment rate of 11.4 per cent was the highest figure recorded since the survey commenced in 1960.



Source: ABS 6203.0, Monthly data

LABOUR FORCE STATUS OF CIVILIAN POPULATION: PERSONS

Period	Unemployed ('000)	Employed ('000)	Labour force ('000)	Civilian population aged 15+ years ('000) (a)	Unemployment rate (%)	Participation rate (%)
ANNUAL AVERAGE						
1986-87	635.1	7,044.4	7,679.5	12,390.7	8.3	62.0
1987-88	610.5	7,256.3	7,866.8	12,652.5	7.8	62.2
1988-89	535.0	7,551.2	8,086.2	12,913.7	6.6	62.6
1989-90	515.0	7,840.3	8,355.2	13,155.3	6.2	63.5
1990-91	713.6	7,808.8	8,522.4	13,383.9	8.4	63.7
1991-92	888.9	7,684.1	8,572.9	13,598.3	10.4	63.0
MONTHLY — SEASONALLY ADJUSTED UNLESS FOOTNOTED						
1991—						
September	869.8	7,696.0	8,565.8	13,537.5	10.2	63.3
October	870.3	7,678.0	8,548.3	13,555.4	10.2	63.1
November	894.2	7,655.2	8,549.4	13,573.3	10.5	63.0
1992—						
September	927.7	7,688.4	8,616.1	13,738.6	10.8	62.7
October	979.5	7,714.5	8,694.0	13,753.6	11.3	63.2
November	979.9	7,636.1	8,616.0	13,768.6	11.4	62.6

(a) Series is non-seasonal. Original data provided instead of seasonally adjusted or trend data.

Source: ABS, *The Labour Force, Australia* (6203.0).

Explanatory Notes

Unemployment exists when there are people looking for work but unable to find employment. Once a month the Australian Bureau of Statistics conducts a Labour Force Survey in order to monitor the numbers of the employed, the unemployed and those not in the labour force.

The labour force is made up of the civilian population aged 15 years and over who are already working and people who do not have a job but are actively looking for work and are available to start work.

The individuals in the labour force who are not employed, but who are actively looking for work and are available to start work, are defined by the ABS as unemployed. The ABS follows international definitions. Actively looking for work includes writing, telephoning or applying in person to an employer or registering with the Commonwealth Employment Service. However, whether a person is unemployed or not is measured by the ABS independently of whether he or she is receiving a Jobsearch or Newstart allowance from the Department of Social Security or is registered with the Commonwealth Employment Service.

The unemployment rate is the percentage of the labour force that is unemployed.

Individuals who cease to actively look for work are defined as not in the labour force.

To measure movement in and out of the labour force, the labour force is expressed as a percentage of the total population 15 years and over. This percentage is called the participation rate and it measures the number of people who are participating in the labour force by either working or looking for work.

Statistics on unemployment are used by governments, businesses, industrial tribunals, the media, academics and other research workers to provide a better understanding of the current economic situation when formulating policy.

Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.
- ☐ *The Labour Force, Australia* (6203.0)
Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.
- ☐ Information Paper: *Measuring Employment and Unemployment* (6279.0)
Provides information about the monthly labour force survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.

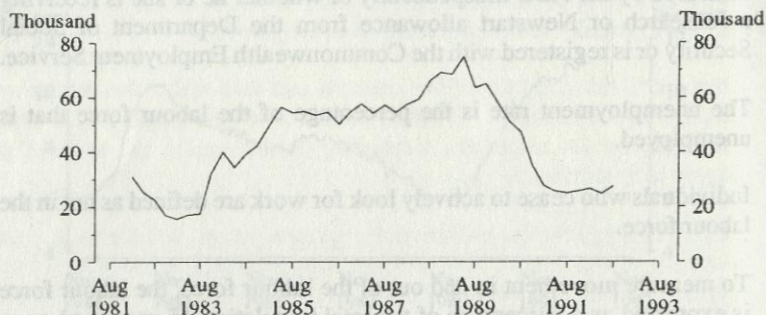
2.6.4

Job Vacancies

Comment

The economic recovery in the mid-1980s saw strong growth in the number of job vacancies. These higher levels of job vacancies continued for the remainder of the 1980s. In seasonally adjusted terms, the number of job vacancies in May 1992 was at its lowest level since August 1983. The number of job vacancies fell sharply from May 1989 until February 1991, where the rate of decline eased and the number of job vacancies since has remained fairly constant.

**JOB VACANCIES: ALL INDUSTRIES
SEASONALLY ADJUSTED**



Source: ABS 6354.0, Quarterly data

**JOB VACANCIES
('000)**

Period	Manufacturing (a)	All industries
ANNUAL AVERAGE		
1986-87	12.7	54.3
1987-88	13.8	57.2
1988-89	14.6	69.5
1989-90	11.4	59.5
1990-91	5.0	34.1
1991-92	3.0	25.6
QUARTERLY — SEASONALLY ADJUSTED UNLESS FOOTNOTED		
1991—		
February	3.9	27.9
May	3.4	25.7
August	3.0	25.1
November	3.3	25.8
1992—		
February	2.5	26.6
May	3.3	24.8
August	3.4	27.5

(a) Seasonally adjusted data not available.

Source: ABS, Job Vacancies and Overtime, Australia (6354.0).

Explanatory Notes

One measure of the demand for labour is the number of job vacancies. When the demand for labour is low, the number of job vacancies is reduced. If the demand for labour is high, the number of job vacancies increases.

The demand for labour is an indicator of changes in the level of economic activity. Recessions are characterised by a low level of job vacancies, while periods of economic growth tend to be characterised by an increase in job vacancies.

A job vacancy is a job available for immediate filling on the survey reference date and for which recruitment action has been taken. Recruitment action includes efforts to fill vacancies by advertising, factory notices, notifying public or private employment agencies, notifying trade unions and by contacting, interviewing or selecting applicants already registered with the enterprise or organisation. Excluded are jobs available only to persons employed by the enterprise or organisation, e.g. the Australian Public Service and the Public Services of each of the States and Territories.

The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of employees plus vacancies. The government, unions and private bodies monitor the job vacancy rates in order to get an indication of the level of future employment. A rise in job vacancies is usually followed by an increase in employment.

Job vacancy statistics are collected by sector (public and private), industry, State or Territory and as a national total. Industry statistics are used to identify the industries experiencing growth or decline. State and Territory statistics show employment prospects and the prospect of economic growth for each of the States or Territories by public and private sectors.

Further Reading

- ☐ *Job Vacancies and Overtime, Australia* (6354.0)
Contains quarterly estimates of the number of job vacancies and job vacancy rates by sector, industry and State and Territory.

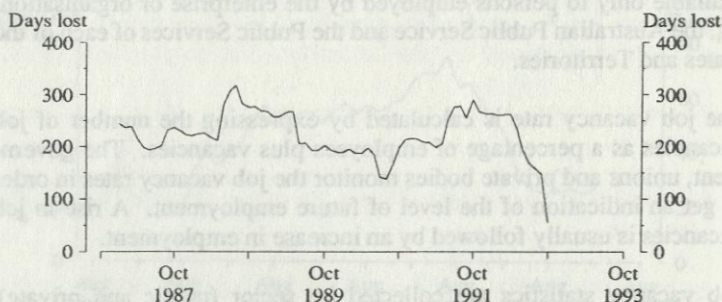
2.6.5

Industrial Disputes

Comment

While the number of working days lost per thousand employees increased in mid 1988, peaking in August 1988 at 318 working days lost per thousand employees, the level of disputation in the last 10 years has been at much lower levels than was the case in the 1970s and early 1980s. In October 1992, working days lost per thousand employees fell to 56, the lowest recorded

WORKING DAYS LOST PER THOUSAND EMPLOYEES



Source: ABS 6321.0, Monthly data

INDUSTRIAL DISPUTES IN PROGRESS: AUSTRALIA

Period	Number of disputes (a)	Employees involved ('000)	Working days lost ('000)	Working days lost per '000 employees
ANNUAL				
1986	1,754	692	1,391	242
1987	1,517	609	1,312	223
1988	1,508	894	1,641	269
1989	1,402	710	1,202	190
1990	1,193	730	1,377	217
1991	1,058	1,182	1,611	265
MONTHLY				
1991—				
August	103	71	69	279
September	87	85	96	256
October	98	566	564	291
1992—				
August	64	9	9	159
September	66	17	25	148
October	65	16	18	56

(a) Disputes affecting more than one industry have been counted as a separate dispute in each industry.

Source: ABS, *Industrial Disputes, Australia* (6321.0).

Explanatory Notes

An industrial dispute is defined as a strike or a lock-out. A strike is when employees refuse to work. A lock-out occurs when the employer does not allow the employees to work. In both cases the normal duties of the employee are not being performed.

The ABS collects information on industrial disputes according to the reason for work stoppage. Reasons are classified into: wages, hours of work, managerial policy, physical working conditions, leave, pensions and compensation, trade unionism and other. Statistics are collected for stoppages when the dispute takes up 10 employee working days or more, that is, when time lost at the establishments where the stoppage occurred is collectively equal to or more than 10 working days. This can involve a small number of employees over a long period of time, or a large group of employees over a short period of time.

Statistics on industrial disputes are used by government departments, industrial relations authorities, employer organisations, employee unions, etc. as broad indicators of the level of industrial unrest.

Further Reading

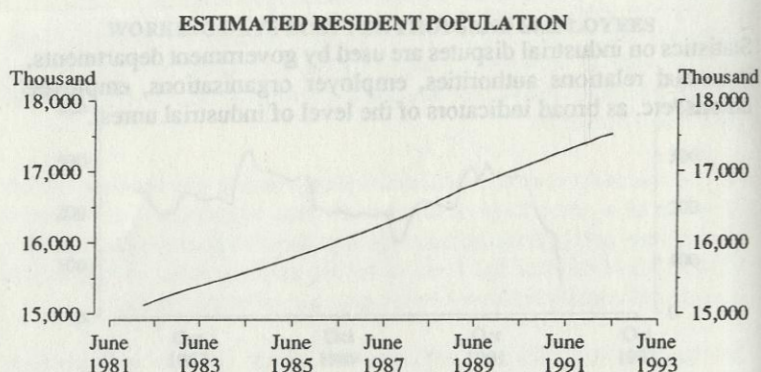
- ☐ *Labour Statistics, Australia* (6101.0)
Contains annual time series statistics on the Australian labour market in tabular and graphical form, including industrial relations.
- ☐ *Industrial Disputes, Australia* (6321.0)
Contains monthly data on the number of disputes, workers involved and other industrial dispute measurements by State, industry, duration, cause and method of settlement.
- ☐ *Industrial Disputes, Australia* (6322.0)
Contains calendar year data on the number of disputes, workers involved and other industrial dispute measurements by State, industry, duration, cause and method of settlement. There are separate tables for disputes in progress during the year and disputes that ended during the year.

2.6.6

Population

Comment

The two components of Australia's population increase, natural increase and net immigration, have resulted in Australia's very steady rate of population growth. The average annual rate of growth from the March quarter 1982 to the March quarter 1992 was 1.46 per cent.



Source: ABS 3101.0, Quarterly data

ESTIMATED RESIDENT POPULATION AND COMPONENTS OF POPULATION CHANGE
(^{'000})

Period	Natural increase	Net immigration	Total increase (a)	Total population at end of period
ANNUAL				
1986-87	126.7	118.3	235.2	16,253.5
1987-88	125.7	149.1	264.9	16,518.4
1988-89	131.4	163.6	284.7	16,803.1
1989-90	132.5	119.9	241.6	17,044.7
1990-91	141.4	109.2	247.3	17,292.0
1991-92	135.0	102.0	237.0	17,529.0
QUARTERLY				
1990—				
December	35	27	63	17,169.4
1991—				
March	36	34	70	17,239.4
June	37	18	53	17,292.0
September	32	30	62	17,354.2
December	33	27	60	17,414.3
1992—				
March	38	34	72	17,486.3
June	32	11	43	17,529.0

(a) Total population increase is equal to the change in population (including deaths).

Source: ABS, Australian Demographic Statistics (3101.0).

Explanatory Notes

Population is defined as the total number of people residing in a country. The ABS estimates the population of Australia by conducting the Census of Population and Housing. Between each census, estimates are made of the population using a range of data including migration levels, births, deaths and other indicators of population change.

While the census counts people at their actual place of location within Australia on census night, population estimates are based on census counts according to where people usually reside in Australia. To obtain population estimates from these usual residence counts, adjustments are made for census undercount, overseas visitors are excluded and Australian residents temporarily overseas on census night are added. These population estimates, derived from census counts are then updated quarterly until the next census in five years time, by adding estimates of natural increase and net migration.

The population will vary as a result of natural increase and net migration. Natural increase is the number of births less the number of deaths. When net migration remains zero, and there are more births than deaths the population will increase; if there are more deaths than births the population will fall.

Net migration is the number of permanent and long-term movements to Australia, less the number of permanent and long-term movements out of Australia.

Population estimates and projections are used by the Government to determine the number of seats allocated to each State in the House of Representatives and also to allocate Commonwealth funds to each State and local government authority. In addition, they are used to plan requirements for hospitals, schools, transport, housing development and other infrastructure and to formulate migration policy.

Further Reading

- ☐ *Australian Demographic Statistics* (3101.0)
Contains quarterly estimates of total population by States, Territories and Australia. Included are the most recent estimates of population in five-year age groups. Details of the components of population, vital statistics and migration are also included.
- ☐ *Estimated Resident Population by Sex and Age: States and Territories of Australia* (3201.0)
Contains annual estimates of population for each State and Territory classified by sex and single years of age (0 to 84).
- ☐ *Projections of the Populations of Australia, States and Territories* (3222.0)
Provides four alternative projections of the resident population by selected ages and sex by State for each year to 1993 and from 1996 at five-yearly intervals to 2031.

Section 2.7

Financial Markets

2.7.1 M3, Broad Money and Credit

2.7.2 Interest Rates

2.7.3 Share Price Indexes

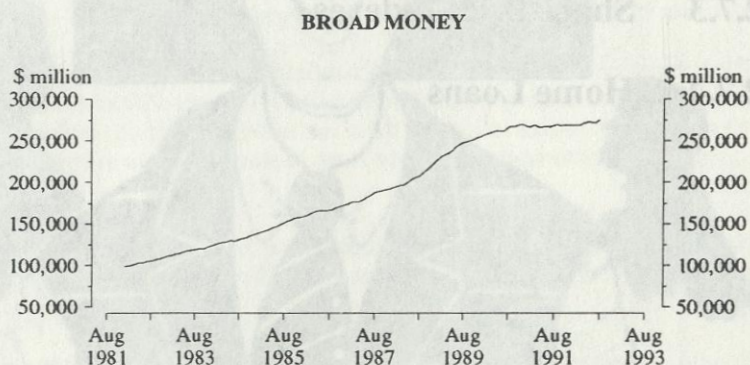
2.7.4 Home Loans

2.7.1

M3, Broad Money and Credit

Comment

Over the period from 1982 to 1992 the amount of money in circulation in the Australian Economy as measured by the Broad Money supply has risen from \$98,690m in January 1982 to \$275,050m in August 1992. The period from 1988 to 1990 was one of more rapid growth in the money supply although it has been relatively stable throughout 1991 and 1992.



Source: Reserve Bank of Australia Bulletin, Monthly data

SELECTED FINANCIAL AGGREGATES (\$ million)

Period	M3 (a)	Broad money (b)	Total credit (c)
ANNUAL			
1986-87	114,896	181,429	199,481
1987-88	130,163	203,393	248,399
1988-89	166,506	242,022	300,879
1989-90	190,410	261,917	332,932
1990-91	202,650	266,402	340,796
1991-92	208,519	270,162	336,003
MONTHLY — SEASONALLY ADJUSTED			
1991—			
June	203,023	267,811	339,577
July	203,057	266,920	339,324
August	204,036	267,940	339,333
1992—			
June	208,942	271,764	333,955
July	218,148	272,315	332,925
August	220,570	275,050	334,095

(a) Currency plus bank deposits (including certificates of deposits with trading banks) of private non-bank sector. (b) M3 plus borrowings from private sector by non-bank financial intermediaries less the latter's holdings of currency and bank deposits. (c) Credit is equal to bank bills outstanding plus loans and advances by financial intermediaries whose liabilities are included in Broad Money.

Source: Reserve Bank of Australia Bulletin.

Explanatory Notes

Financial aggregates have long been used by central banks as indicators of the effects of monetary policy. Aggregates can be useful if they have a stable relationship with income or spending, or with the aggregate price level. Aggregates currently used in Australia are currency, M1, M3, Broad Money and Credit.

The first four of these are monetary aggregates and refer mainly to liabilities of the finance sector while credit is a measure based on financial intermediaries' assets. Definitions are as follows:

- currency = non-bank private sector holdings of notes and coin.
- M1 = currency + deposits of the non-bank private sector in cheque accounts with banks.
- M3 = M1 + all other deposits of the non-bank private sector with banks.
- Broad Money = M3 + borrowing by non-bank financial intermediaries from the non-financial private sector.
- Credit = outstanding loans and advances from financial intermediaries to the private non-financial sector, plus bank bills outstanding.

(A former aggregate, M2, which combined currency with all private sector deposits with trading banks is no longer of use as the legal distinction between trading and savings banks has been abolished.)

Between 1976 and 1985 projections for M3 growth were established by the authorities in order to determine the stance of monetary policy. Relationships between money and credit, economic growth and inflation are complex, however, and in the period following deregulation of the financial system, these relationships appear to have broken down. Because of this, policies targeting a monetary aggregate are no longer pursued, though financial aggregates remain in the set of indicators used in setting and assessing the effects of monetary policy.

Further Reading

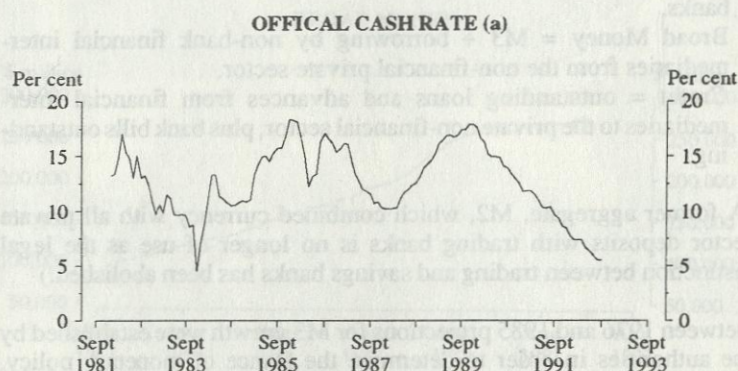
- ☐ *Reserve Bank of Australia Bulletin*
Contains monthly levels of selected monetary aggregates for Australia. See also the feature article *Recent Trends in Money and Credit* in the December 1991 issue of *Reserve Bank of Australia Bulletin*.
- ☐ *Financial Aggregates*
Monthly Reserve Bank of Australia press release containing Australia's financial aggregates.
- ☐ *Australian National Accounts: Financial Accounts (5232.0)*
Shows the level (stock) of financial assets and liabilities of each sector of the economy; the market for each of the conventional financial instruments; and inter-sectoral transactions in financial assets and liabilities.

2.7.2

Interest Rates

Comment

The official cash rate fluctuated significantly between January 1982 and July 1987. During this time the official cash rate reached 17.05 in April 1982 then fell to 4.55 per cent in December 1983. The official cash rate peaked in December 1985 at 18.37 per cent. From November 1989 to September 1992 the official cash rate fell steadily.



(a) Authorised dealers: Weighted average rate. Data are the weighted average of the month.
Source: Reserve Bank of Australia Bulletin, Monthly data

KEY INTEREST RATES (a) (per cent)

Period	Private official cash rate (b)	Private prime rate	Private 90-day bank bills (c)	Commonwealth government 10-year treasury bonds
ANNUAL				
1986-87	12.79	16.25	13.35	12.80
1987-88	11.79	15.00	13.15	11.95
1988-89	16.95	19.75	18.30	13.50
1989-90	14.98	18.75	15.10	13.40
1990-91	10.39	14.25	10.50	11.15
1991-92	6.41	10.75	6.40	8.90
MONTHLY				
1991—				
July	10.29	14.25	10.10	11.00
August	10.45	14.25	10.20	10.65
September	9.66	13.50	9.55	10.30
1992—				
July	5.97	10.75	5.55	8.30
August	5.61	10.00	5.90	8.95
September	5.54	10.00	5.95	8.95

(a) All data are end of period unless otherwise stated. (b) Authorised dealers: Weighted average rate. Data are the weighted average of the month, annuals are from the last month of the year. (c) Data are the weighted average of the last week of the period.

Source: Reserve Bank of Australia Bulletin.

Explanatory Notes

Interest is the compensation paid to a lender for deferring expenditure and the price paid by a borrower for the use of the funds saved by the lender.

There are different rates of interest which vary according to factors such as the amount borrowed, the length of time and the credit rating of the borrower. As a guide to the level of long-term interest rates, the yield (i.e. the equivalent of the interest rate) on a 10-year Treasury bond is shown. The cash rate, prime rate and 90-day bank bill yield are examples of short-term interest rates.

The cash rate measures the amount of interest paid on overnight or one-day loans. This short-term money market is where banks and other large corporations lend funds that are temporarily surplus to other banks, etc. which have a temporary shortfall.

The Reserve Bank of Australia operates in the short-term money market in order to influence the cash rate (by borrowing and lending funds itself). In turn, changes in the level of the cash rate affect other interest rates.

Interest rates on short-term investments, e.g. 90-day bank bills, are very closely related to the cash rate. Ultimately, interest rates on bank deposits and funds placed with building societies, credit unions and the like are also related to the cash rate to varying degrees. Changes in the cost of borrowing by intermediaries flow through to their loan rates. For example, the prime rate, which indicates the amount of interest charged by banks on loans to preferred customers, tends to move at an equal pace with the cash rate.

These inter-relationships allow the Reserve Bank, through its operations in the short-term money market, to have an effect on many interest rates in the economy. This means that the Bank can influence the cost and hence the amount of borrowing and lending in the economy, with the aim of maintaining low inflation and contributing to a policy mix to achieve strong economic growth.

Further Reading

- ☐ *Reserve Bank of Australia Bulletin*
Contains monthly information on interest rates for the money market, capital market, banks and other financial institutions.
- ☐ *Monthly Statistics for Corporations Registered under the Financial Corporations Act (5647.0)*
Contains monthly statistics, including interest rates, for all financial corporations registered under the Financial Corporations Act.

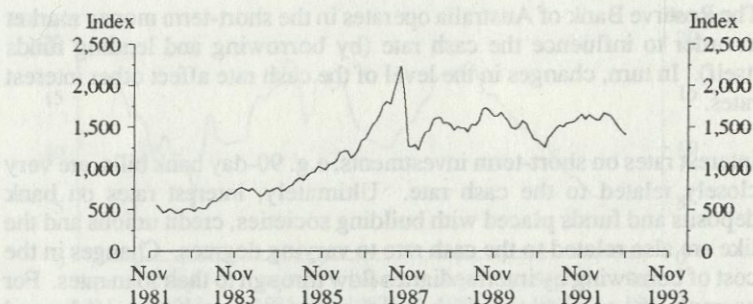
2.7.3

Share Price Indexes

Comment

The all ordinaries index experienced strong growth during 1985 and 1986 and even stronger growth from November 1986 to September 1987. This growth was brought to an abrupt halt with the stock market crash of 1987, which resulted in an immediate plunge in the all ordinaries index. From the time of the crash to November 1992, the index displayed modest fluctuations, with no clear upward or downward trend evident.

ALL ORDINARIES INDEX
(31 Dec 1979 = 500)



Source: Australian Stock Exchange, Monthly data

AUSTRALIAN STOCK MARKET INDEXES (a)
(31 Dec 1979 = 500.0)

Period	All industrials	All resources	All ordinaries
ANNUAL			
1986-87	2,599.3	1,153.9	1,779.1
1987-88	2,506.0	885.2	1,585.3
1988-89	2,498.3	798.2	1,527.7
1989-90	2,367.9	855.3	1,508.8
1990-91	2,330.7	873.5	1,504.9
1991-92	2,550.0	965.7	1,652.7
MONTHLY			
1991—			
September	2,402.4	917.1	1,561.6
October	2,493.1	931.2	1,608.0
November	2,591.4	944.6	1,657.1
1992—			
September	2,334.0	881.3	1,511.2
October	2,257.8	826.5	1,447.1
November	2,244.1	776.9	1,413.1

(a) Indexes of share prices on joint trading floors. Monthly figures are average of daily figures for the month. Annual index is from the last month of the year.

Source: Australian Stock Exchange, Monthly Index Analysis.

Explanatory Notes

Share price indexes provide an indication of aggregate price movements for listed shares on the Australian Stock Exchange (ASX).

The most quoted index is the all ordinaries share price index. The all ordinaries is calculated from a sample of shares which include those of approximately 260 companies which account for over 90 per cent of the ordinary shares of domestic companies listed on the Australian market.

The all ordinaries sample is reviewed each month and is chosen mainly on the basis of the market value of the company and how often the shares are traded.

Another important index is the all resources index which measures the movement in share prices for leading mining and oil companies. The Australian Stock Exchange also produces 23 sub-indexes for specific sectors within the share market. These measure the rise and fall in the Aggregate Market Value (AMV) of shares included in the sub-index. Some industries (e.g. car manufacturers) have no publicly listed shares in Australia, so no share indexes can be produced for these industries.

Share price indexes only measure the capital gain or loss experienced by shareholders through fluctuations in share prices and do not take into account dividends earned. Share prices reflect business confidence in general, as well as in specific industries. A set of 28 accumulation indexes is also calculated by the Australian Stock Exchange. These are intended to indicate the total pre-tax returns (after reinvesting dividends) from investments in listed shares.

Further Reading

- ☐ *Companies on the Australian Stock Exchange Indices*
Presents a detailed explanation of the indexes produced by the Australian Stock Exchange and lists the index portfolio at the time of the publication (updated quarterly).
- ☐ *Monthly Index Analysis*
Contains monthly records of all Australian share price and accumulation index movements, including sample changes, index weights comparisons with international indexes, currency adjusted indexes and exchange rates.
- ☐ *ASX Indices and Yields Book*
Updates the popular *Stock Exchange Indices and Statistics* book published in 1986. It contains tabulations of historical data covering all ASX share price and Accumulation Indexes monthly from 1979 to 1992. It also provides longer monthly tabulations back as far as 1875 for selected indexes.

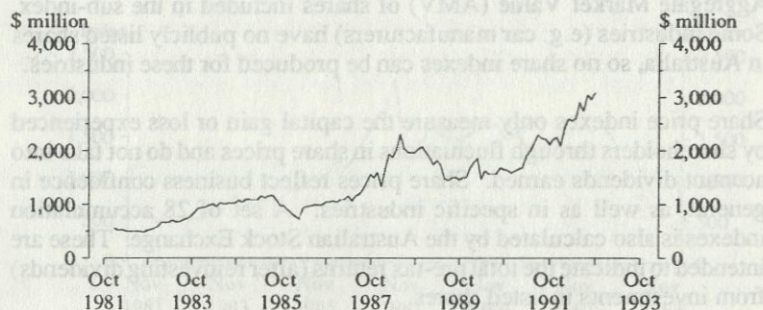
2.7.4

Home Loans

Comment

Total secured housing finance commitments to individuals, seasonally adjusted, rose steadily from the early 1980s to 1985 then declined before showing signs of improvement in April 1986. This improvement was sustained until June 1988. Since April 1991 increasing growth in secured housing finance commitments to individuals is evident.

TOTAL SECURED HOUSING FINANCE COMMITMENTS TO INDIVIDUALS, SEASONALLY ADJUSTED



Source: ABS 5609.0, Monthly data

SECURED HOUSING FINANCE COMMITMENTS TO INDIVIDUALS

Period	Construction of dwellings (\$m)	Purchase of newly erected dwellings (\$m)	Purchase of established dwellings (\$m)	Total (\$m)	New bank home loans interest rate (%) (a)
ANNUAL					
1986-87	1,996.1	841.8	9,992.2	12,830.0	15.5
1987-88	3,219.3	1,058.3	15,832.1	20,109.7	13.5
1988-89	4,025.3	1,237.4	17,525.0	22,787.8	17.0
1989-90	3,535.7	1,085.4	14,338.8	18,959.9	16.5
1990-91	3,821.2	1,320.3	15,634.3	20,775.7	13.0
1991-92	4,828.3	1,636.2	22,073.9	28,538.4	10.5
MONTHLY — SEASONALLY ADJUSTED					
1991—					
August	379.8	135.8	1,721.8	2,237.4	13.0
September	360.4	114.4	1,749.4	2,224.3	13.0
October	352.0	111.2	1,659.2	2,122.4	12.5
1992—					
August	522.9	157.8	2,376.4	3,057.1	10.0
September	498.6	138.2	2,327.3	2,964.0	10.0
October	547.4	141.8	2,398.2	3,087.4	10.0

(a) End of period.

Sources: ABS, Housing Finance for Owner Occupation, Australia (5609.0) and Reserve Bank of Australia Bulletin.

Explanatory Notes

Housing purchases are most commonly financed by a loan from a financial institution. Housing finance statistics measure the supply of finance only, not the demand for housing finance. The supply is, however, influenced by both the availability of and the demand for housing finance. The demand for housing loans is dependent on people's perceived ability to repay the loan. The ability to repay the loan is affected by interest rates, the price of the house, the applicant's income level and the risk of losing their source of income.

Prior to April 1986, the Federal Government regulated the housing loan interest rate. Banks were given a maximum interest rate which they were allowed to charge borrowers. The Government was aiming to make housing more affordable. Since 1986, banks have been allowed to determine the interest rate levels for housing loans.

The Government still has an influence over the interest rate through its monetary policy stance. When monetary policy is tight, interest rates are high. The cost of housing, financed by borrowing, increases. When monetary policy is loosened interest rates fall. The cost of housing, financed by borrowing, declines.

Further Reading

- ☐ *Housing Finance for Owner Occupation, Australia (5609.0)*

Presents data on secured finance commitments to individuals for construction of dwellings, purchase of new and established dwellings by banks, permanent building societies and other lenders.

NOTE: The statistics for Germany in this publication refer to Western Germany (Federal Republic of Germany) before the unification with the German Democratic Republic, except where otherwise indicated.

Statistics relate to members of the Organisation for Economic Co-operation and Development (OECD). The OECD comprises European Economic Community members: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom, plus Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, the United States, Canada, Japan, New Zealand and Australia. The major world OECD countries are Germany, Italy, Japan, the United Kingdom and the United States.

CHAPTER



3

CHAPTER 3

INTERNATIONAL COMPARISONS

- 3.1 Real Gross Domestic Product
- 3.2 Balance on Current Account
- 3.3 Balance on Merchandise Trade
- 3.4 Unemployment Rates
- 3.5 Private Consumption Expenditure Volume Index
- 3.6 Private Fixed Capital Investment Volume Index
- 3.7 Industrial Production Volume Index
- 3.8 Consumer Price Index
- 3.9 Short-term Interest Rates
- 3.10 Exchange Rates
- 3.11 Share Price Index

NOTE: The statistics for Germany in these tables refer to *Western Germany* (Federal Republic of Germany before the unification of Germany), except where otherwise indicated.

Statistics relate to members of the Organisation for Economic Cooperation and Development (OECD). The OECD comprises European Economic Community members Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom plus Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, the United States, Canada, Japan, New Zealand and Australia. The major seven OECD countries are of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

International Comparisons

International comparisons show the economic performance of Australia against the performance of other countries.

Some care must be taken when comparing economic indicators between countries. Statistical systems vary considerably between countries and this will affect the extent of comparability of the data.

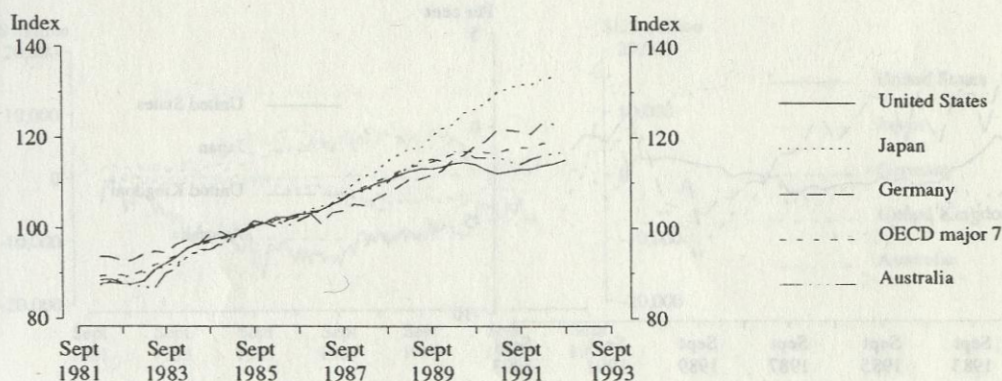
Australian and other government statistical agencies throughout the world produce and present national accounts based on the principles contained in the United Nations *A System of National Accounts* (SNA). Although a number of other international standards have been developed for specific areas of national accounts, such as the International Monetary Fund's *Balance of Payments Manual* and *Government Finance Statistics*, the SNA has a central position in the standard setting process for economic statistics generally. However, the degree to which the system is implemented varies considerably between countries.

Further Reading

- ☐ *OECD Outlook*
Presents data on OECD member nations, published in May and December of each year, including employment/unemployment, current account balance, inflation and real GDP.
- ☐ *OECD Economic Surveys: Australia*
Reviews trends in the Australian economy and policy conclusions. Presents a calendar of the main economic events and Australian and international statistics in a statistical annex.
- ☐ *Australian Economic Indicators* (1350.0)
A comprehensive, monthly compendium of economic statistics including international comparisons. Generally presents statistics for the last 9 years.

3.1 Real Gross Domestic Product

REAL GROSS DOMESTIC PRODUCT VOLUME INDEXES
SEASONALLY ADJUSTED (1985 = 100)



Source: Organisation for Economic Cooperation and Development, Quarterly data

REAL GROSS DOMESTIC PRODUCT VOLUME INDEXES (a)
(1985 = 100.0)

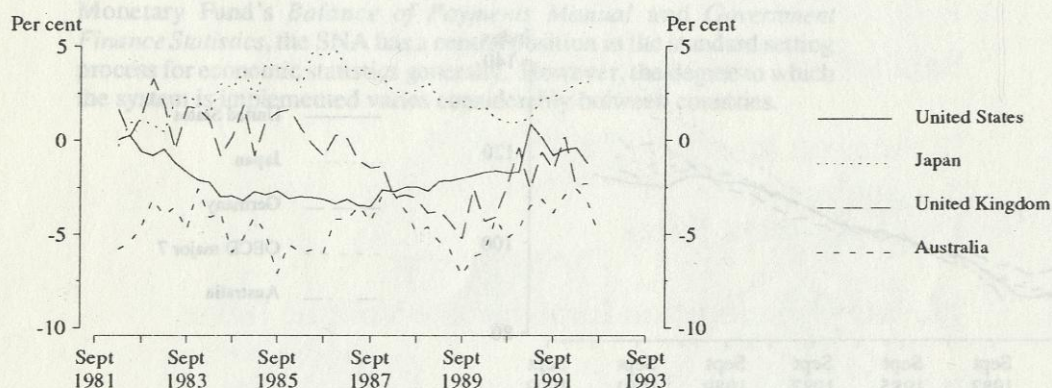
Period	United States	Japan	Germany	OECD major 7	Australia
ANNUAL					
1986-87	104.1	104.5	102.7	104.2	103.6
1987-88	108.3	110.5	105.4	108.8	108.1
1988-89	112.0	116.5	109.7	113.0	112.7
1989-90	113.9	122.6	113.9	115.9	116.1
1990-91	112.9	128.8	120.2	117.1	115.4
1991-92	113.6	132.4	122.1	118.3	115.6
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	112.1	130.1	121.7	116.9	115.7
June	112.6	131.0	121.6	117.4	114.8
September	112.9	131.7	121.4	117.8	114.2
December	113.1	131.6	120.8	117.8	115.3
1992—					
March	113.9	133.0	123.1	118.7	116.2
June	114.3	133.4	122.9	119.0	116.6
September	115.1	n.y.a.	n.y.a.	n.y.a.	117.0

(a) Data for the United States, Japan and Germany measure real gross national product.

Sources: Organisation for Economic Cooperation and Development and ABS.

3.2 Balance on Current Account

BALANCE ON CURRENT ACCOUNT AS A PERCENTAGE OF SEASONALLY ADJUSTED GDP



Source: Organisation for Economic Cooperation and Development, Quarterly data

BALANCE ON CURRENT ACCOUNT: PERCENTAGE OF SEASONALLY ADJUSTED GDP (a)

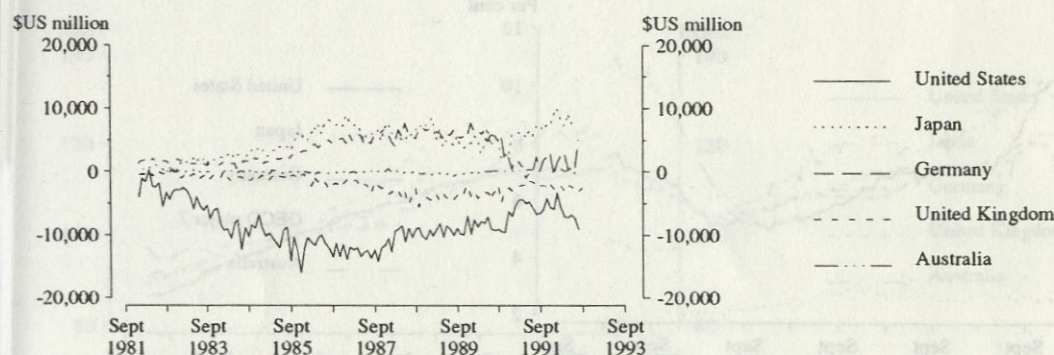
Period	United States	Japan	United Kingdom	Australia
ANNUAL				
1986-87	-3.3	4.2	-0.4	-4.4
1987-88	-2.8	3.0	-2.2	-3.4
1988-89	-2.3	2.5	-3.8	-5.2
1989-90	-1.8	1.7	-4.0	-5.8
1990-91	-0.6	1.4	-1.5	-4.1
1991-92	-0.7	2.8	-1.5	-3.1
QUARTERLY — SEASONALLY ADJUSTED				
1991—				
March	0.9	1.2	-2.6	-3.5
June	0.2	2.3	-0.6	-3.1
September	-0.8	2.3	-1.5	-3.9
December	-0.5	2.7	0.2	-2.9
1992—				
March	-0.4	3.0	-2.3	-2.6
June	-0.2	3.2	-2.3	-3.2
September	n.y.a.	n.y.a.	n.y.a.	-5.0

(a) Statistics are calculated using the original balance on current account as a percentage of the seasonally adjusted current price gross domestic product, except for the United States, Japan and Germany, where real gross national product replaces gross domestic product.

Sources: Organisation for Economic Cooperation and Development and ABS.

Balance on Merchandise Trade

**BALANCE ON MERCHANDISE TRADE
SEASONALLY ADJUSTED**



Source: Organisation for Economic Cooperation and Development, Monthly data

**BALANCE ON MERCHANDISE TRADE (a)
(\$US million)**

Period	United States	Japan	Germany (b)	United Kingdom	Australia
ANNUAL					
1986-87	-149,035	89,137	61,269	-20,911	-906
1987-88	-136,797	73,749	69,431	-34,132	232
1988-89	-112,829	77,747	74,205	-49,164	-2,908
1989-90	-103,029	56,755	73,250	-41,606	-1,583
1990-91	-82,813	58,313	30,605	-31,514	2,776
1991-92	-69,937	93,702	17,662	-26,397	3,056
MONTHLY — SEASONALLY ADJUSTED					
1991—					
July	-5,634	5,745	n.a.	-1,517	306
August	-6,614	7,193	2,521	-1,913	456
September	-6,475	7,542	295	-2,113	110
1992—					
July	-7,276	8,142	736	-2,769	-108
August	-9,005	8,476	5,168	-3,010	107
September	n.y.a.	n.y.a.	n.y.a.	-2,502	n.y.a.

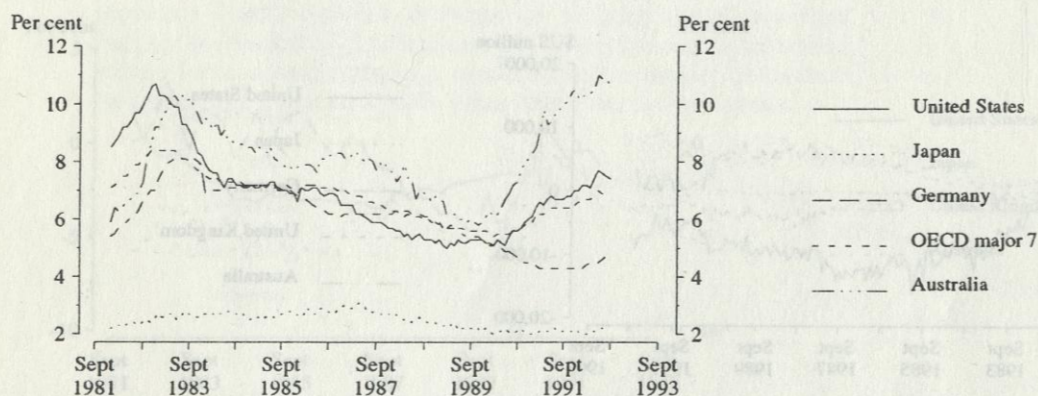
(a) All series are exports (f.o.b.) less imports (c.i.f.), except Australia where imports are also f.o.b. Data are measured on a foreign trade basis. (b) Excluding trade with the German Democratic Republic. From July 1990, data refer to Germany after unification.

Source: Organisation for Economic Cooperation and Development.

3.4

Unemployment Rates

STANDARDISED UNEMPLOYMENT RATES
SEASONALLY ADJUSTED



Source: Organisation for Economic Cooperation and Development, Monthly data

UNEMPLOYMENT RATES (a)
(per cent)

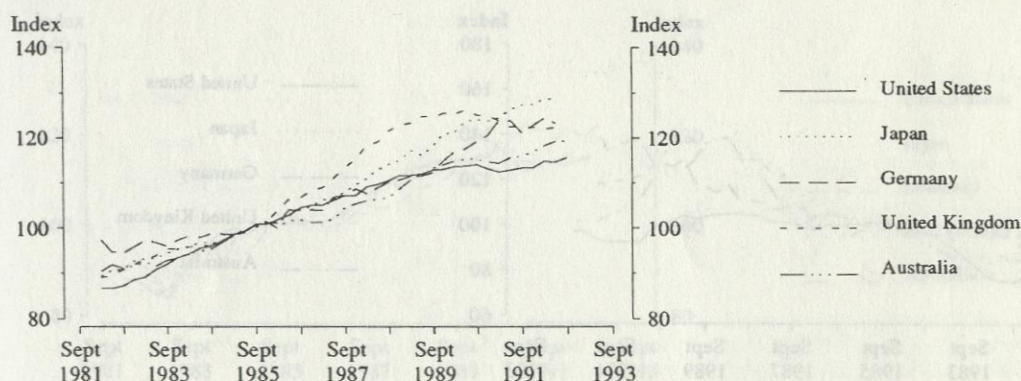
Period	United States	Japan	Germany	OECD major 7	Australia
ANNUAL					
1986-87	6.1	3.0	6.2	6.7	8.0
1987-88	5.3	2.4	6.2	6.0	7.4
1988-89	5.3	2.2	5.6	5.7	6.0
1989-90	5.1	2.2	4.9	5.5	6.7
1990-91	6.8	2.1	4.3	6.4	9.4
1991-92	7.7	2.1	4.5	7.0	11.0
MONTHLY — SEASONALLY ADJUSTED					
1991—					
July	6.7	2.2	4.3	6.4	9.7
August	6.7	2.1	4.3	6.4	9.8
September	6.7	2.1	4.3	6.4	10.0
1992—					
July	7.6	2.2	4.6	6.9	10.9
August	7.5	2.2	4.7	6.9	10.9
September	7.4	n.y.a.	n.y.a.	n.y.a.	10.6

(a) All series are OECD standardised unemployment rates.

Source: Organisation for Economic Cooperation and Development.

3.5 Private Consumption Expenditure Volume Index

PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEXES,
SEASONALLY ADJUSTED (1985 = 100)



Source: Organisation for Economic Cooperation and Development, Quarterly data

PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEXES
(1985 = 100.0)

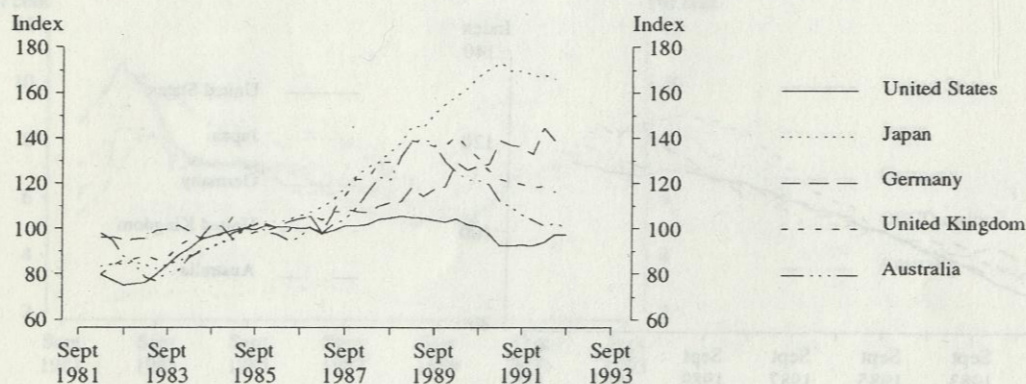
Period	United States	Japan	Germany	United Kingdom	Australia
ANNUAL					
1986-87	105.2	105.6	104.8	108.9	101.8
1987-88	108.4	110.5	108.2	116.6	105.7
1988-89	111.6	115.7	111.1	123.3	109.6
1989-90	113.4	121.2	115.6	125.5	114.5
1990-91	113.3	124.7	121.9	124.2	115.0
1991-92	114.1	128.2	123.0	122.4	117.7
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	112.5	124.6	123.8	124.0	114.4
June	113.0	126.5	124.0	122.6	115.7
September	113.4	127.5	121.1	122.5	116.2
December	113.4	127.6	122.8	122.4	117.0
1992—					
March	114.8	128.8	124.5	122.0	118.4
June	114.7	128.7	123.4	122.6	119.3
September	115.7	n.y.a.	n.y.a.	n.y.a.	119.4

Source: Organisation for Economic Cooperation and Development.

3.6

Private Fixed Capital Investment Volume Index

PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEXES
SEASONALLY ADJUSTED (1985 = 100)



Source: Organisation for Economic Cooperation and Development, Quarterly data

PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEXES (a)
(1985 = 100.0)

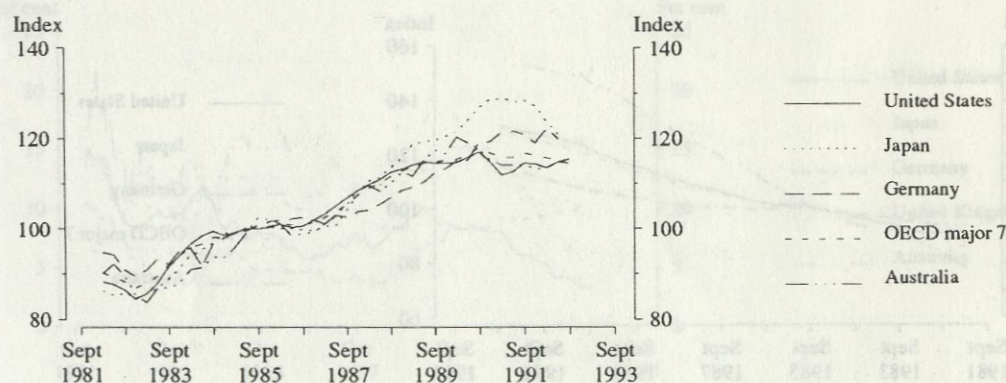
Period	United States	Japan	Germany	United Kingdom	Australia
ANNUAL					
1986-87	99.3	109.0	104.0	105.6	99.4
1987-88	102.2	124.5	108.3	122.1	113.1
1988-89	105.1	140.5	113.9	134.5	132.9
1989-90	103.3	156.7	122.8	137.6	128.5
1990-91	96.0	170.2	133.2	124.7	115.7
1991-92	94.2	167.8	138.0	118.3	103.6
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	92.7	173.1	139.0	121.8	112.0
June	92.5	169.8	137.1	120.4	109.4
September	92.8	170.1	136.2	119.6	106.1
December	92.5	167.5	133.0	118.5	103.9
1992—					
March	94.1	167.7	144.6	119.0	101.7
June	97.5	165.8	138.3	116.2	102.6
September	97.6	n.y.a.	n.y.a.	n.y.a.	100.5

(a) Fixed capital investment volume indexes for Germany and the United Kingdom are for gross domestic fixed investment.

Sources: Organisation for Economic Cooperation and Development and ABS.

3.7 Industrial Production Volume Index

INDUSTRIAL PRODUCTION VOLUME INDEXES
SEASONALLY ADJUSTED (1985 = 100)



Source: Organisation for Economic Cooperation and Development, Quarterly data

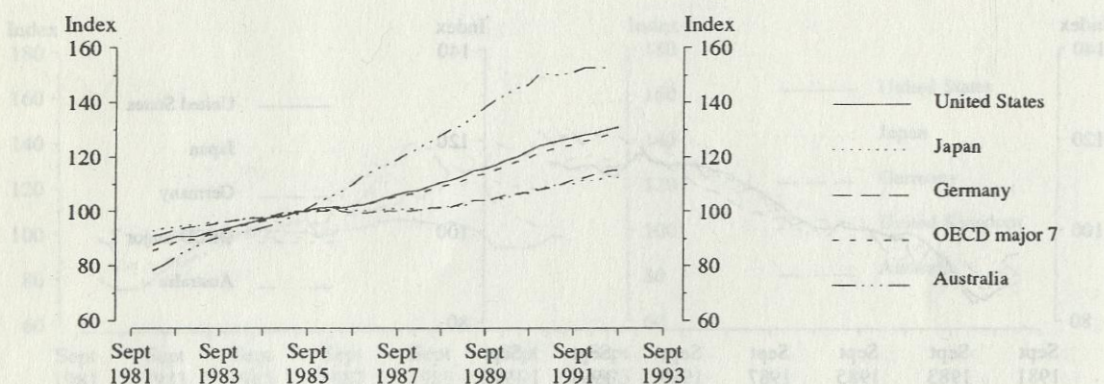
INDUSTRIAL PRODUCTION VOLUME INDEXES
(1985 = 100.0)

Period	United States	Japan	Germany	OECD major 7	Australia
ANNUAL					
1986-87	102.7	100.2	102.2	102.2	100.7
1987-88	109.0	108.4	104.0	108.0	108.0
1988-89	113.7	116.9	108.8	113.2	112.4
1989-90	114.9	121.5	114.1	115.5	118.4
1990-91	114.2	128.2	120.3	116.6	115.3
1991-92	114.3	125.2	120.5	116.0	114.0
QUARTERLY — SEASONALLY ADJUSTED					
1991—					
March	112.0	128.9	121.4	115.9	114.2
June	112.7	128.2	121.6	115.8	114.1
September	114.6	128.5	120.9	116.8	114.1
December	114.4	127.3	119.0	116.3	113.3
1992—					
March	113.5	123.9	122.2	115.7	113.7
June	114.9	121.0	119.9	115.2	114.9
September	115.4	n.y.a.	n.y.a.	n.y.a.	114.6

Sources: Organisation for Economic Cooperation and Development and ABS.

3.8 Consumer Price Index

CONSUMER PRICE INDEXES (ALL ITEMS)
(1985 = 100)



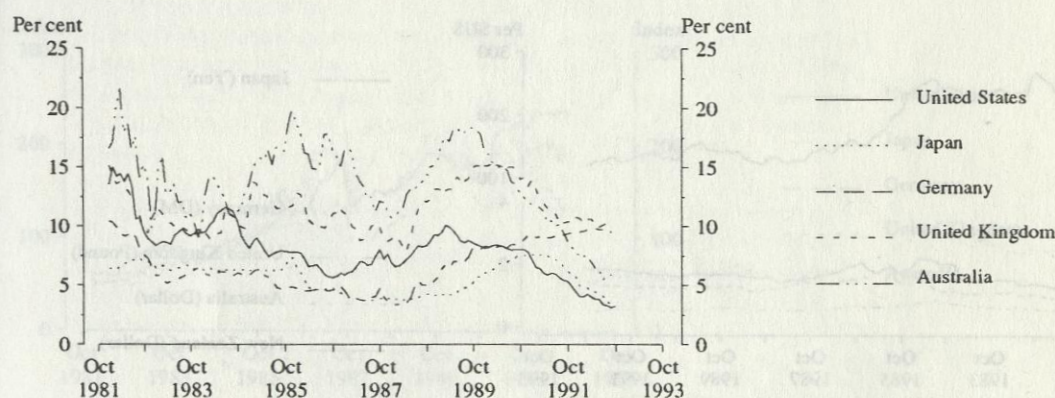
Source: Organisation for Economic Cooperation and Development, Quarterly data

CONSUMER PRICE INDEXES (ALL ITEMS)
(1985 = 100.0)

Period	United States	Japan	Germany	OECD major 7	Australia
ANNUAL					
1986-87	103.4	100.4	99.7	103.4	114.0
1987-88	107.7	101.0	100.6	106.7	122.4
1988-89	112.7	102.4	102.7	111.1	131.4
1989-90	118.0	105.3	105.5	116.2	142.0
1990-91	124.5	108.8	108.5	122.1	149.5
1991-92	128.5	111.5	113.1	126.3	152.3
QUARTERLY					
1991—					
March	125.3	109.2	109.0	122.8	150.2
June	126.1	110.3	110.0	123.9	150.5
September	127.0	110.3	111.6	124.8	151.3
December	128.0	111.7	112.4	125.9	152.7
1992—					
March	128.9	111.3	113.7	126.7	152.7
June	130.0	112.8	114.9	128.0	152.3
September	131.0	112.3	115.4	128.6	n.y.a.

Source: Organisation for Economic Cooperation and Development.

SHORT-TERM INTEREST RATES
(per cent per annum)



Source: Organisation for Economic Cooperation and Development, Monthly data

SHORT-TERM INTEREST RATES
(per cent per annum) (a)

Period	United States	Japan	Germany (b)	United Kingdom	Australia
ANNUAL					
1986-87	6.94	3.71	3.73	8.90	13.35
1987-88	7.51	3.82	3.93	8.91	13.15
1988-89	9.20	4.46	7.02	14.15	18.30
1989-90	8.23	6.86	8.30	14.97	15.10
1990-91	6.07	7.41	9.06	11.24	10.50
1991-92	3.86	4.42	9.75	9.98	6.40
MONTHLY					
1991—					
August	5.65	7.05	9.31	10.40	10.20
September	5.47	6.62	9.27	10.29	9.55
October	5.33	6.23	9.38	10.40	8.70
1992—					
August	3.31	3.60	9.88	10.35	5.90
September	3.13	3.48	9.50	9.99	5.95
October	3.26	n.y.a.	n.y.a.	n.y.a.	n.y.a.

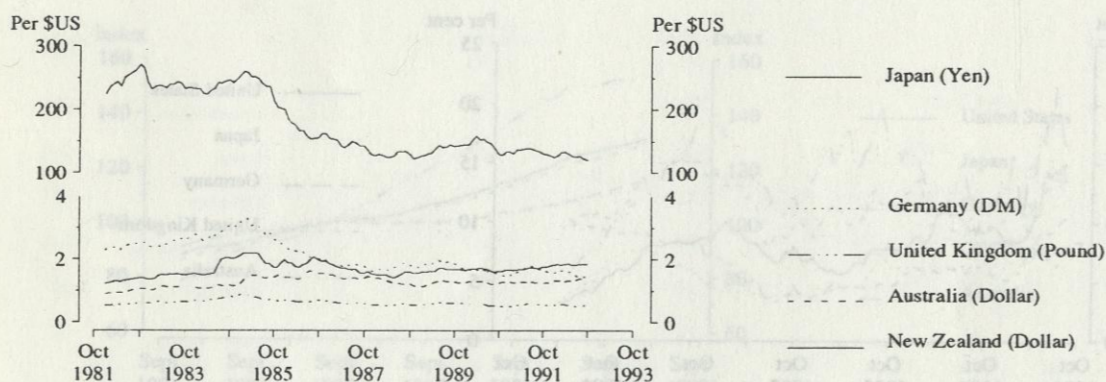
(a) All rates are the 3-month treasury bill rate except Japan (3-month "gensaki" rate), Germany (3-month loans rate), and Australia (90-day commercial bill rate). (b) Monetary, economic and social union between the Federal Republic and German Democratic Republic took place on 1 July 1990.

Source: Organisation for Economic Cooperation and Development.

3.10

Exchange Rates

SELECTED EXCHANGE RATES
CURRENCY PER \$US



Source: Organisation for Economic Cooperation and Development, Monthly data

EXCHANGE RATES — CURRENCY PER US DOLLAR

Period	Japan (Yen)	Germany (DM) (a)	United Kingdom (Pound)	Australia (Dollar)	New Zealand (Dollar)
ANNUAL					
1986-87	144.52	1.82	0.61	1.39	1.71
1987-88	126.84	1.75	0.56	1.24	1.43
1988-89	143.91	1.98	0.64	1.32	1.74
1989-90	153.76	1.68	0.58	1.28	1.72
1990-91	139.80	1.78	0.61	1.32	1.73
1991-92	126.91	1.57	0.54	1.32	1.84
MONTHLY (b)					
1991—					
August	136.850	1.745	0.594	1.278	1.742
September	134.590	1.697	0.580	1.258	1.725
October	130.900	1.692	0.581	1.262	1.776
1992—					
August	126.340	1.451	0.515	1.380	1.850
September	122.670	1.448	0.541	1.384	1.847
October	121.140	1.481	0.604	1.399	1.854

(a) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1 July 1990.

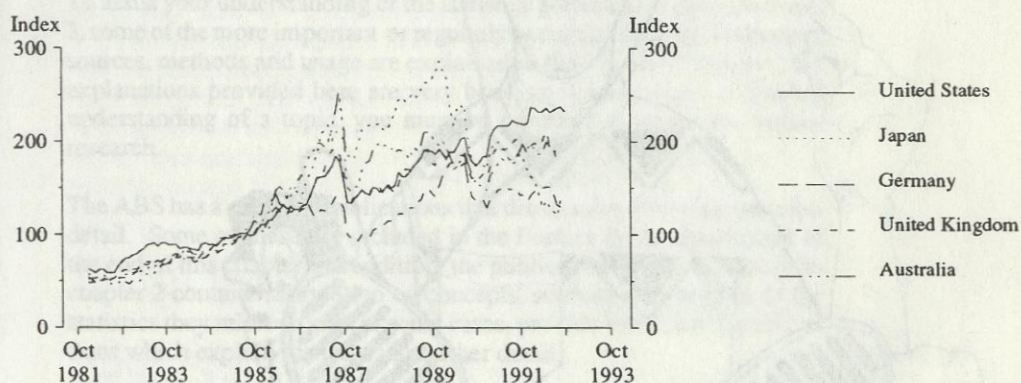
(b) Monthly data are daily averages of spot rates quoted for the US dollar on national markets.

Source: Organisation for Economic Cooperation and Development.

3.11

Share Price Index

SHARE PRICE INDEXES
(1985 = 100)



Source: Organisation for Economic Cooperation and Development, Monthly data

SHARE PRICE INDEXES (a)
(1985 = 100.0)

Period	United States (b)	Japan (c)	Germany (b) (d)	United Kingdom (c)	Australia (c)
ANNUAL					
1986-87	168	218	130	182	199
1987-88	151	219	105	151	192
1988-89	178	248	136	177	191
1989-90	203	239	174	186	181
1990-91	217	190	154	192	179
1991-92	232	130	152	196	195
MONTHLY					
1991—					
August	223	177	148	199	182
September	221	179	150	203	184
October	220	188	143	200	191
1992—					
August	236	121	133	182	186
September	238	138	130	188	n.y.a.
October	233	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Industrial share prices for the United States, Germany, United Kingdom and Australia. For Japan, data refer to all shares. (b) Monthly data are daily averages. (c) Index of closing price on last trading day of month. (d) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1 July, 1990.

Source: Organisation for Economic Cooperation and Development.

CHAPTER



4

CHAPTER 4

STATISTICS: CONCEPTS, SOURCES, METHODS AND USAGE

To assist your understanding of the statistics presented in chapters 2 and 3, some of the more important or regularly occurring statistical concepts, sources, methods and usage are explained in this chapter. However, the explanations provided here are very brief, so if you require a detailed understanding of a topic, you must be prepared to undertake further research.

The ABS has a range of publications that discuss the following issues in detail. Some of these are included in the Further Reading reference at the end of this chapter. In addition, the publications listed as sources in chapter 2 contain information on concepts, sources and methods of the statistics they relate to and, in some cases, provide reference to publications which explain the issues in further detail.

STATISTICAL CONCEPTS AND METHODS

Time series

A data set is a collection of observations relating to a variable or group of variables. For example, a set of data could consist of observations of the population for each State and Territory in Australia at a single point in time, say census night 1991. This provides a snapshot view of the population of Australia which could be used to compare populations of the various States and Territories in terms of age, sex etc.

A time series is a list of observations for the same variable or group of variables over a period of time. For example a time series could consist of the population for Australia for each year from 1980 to 1990. Time series enable recent estimates to be placed in a meaningful historical perspective, which permits analysts to see if the current situation is improving, deteriorating or staying much the same.

Classifications

Classification is the grouping of data into classes or categories according to various characteristics. For example, retail businesses may be classified according to what they sell. Instead of just compiling data about "retailers", data could be compiled separately for footwear stores, butchers, newsagents etc.

The ABS has defined standard classifications that are used to present a wide range of data. Some examples of these are:

- Australian and New Zealand Standard Industrial Classification (ANZSIC);
- Australian Standard Geographical Classification (ASGC);
- Australian Standard Commodity Classification (ASCC);
- Standard Institutional Sector Classification of Australia (SISCA).

Classifications have a standard framework which enables clear scope (boundaries) for the collection and compilation of data. This makes it possible to compare and analyse data from different surveys over a period of time.

ABS classifications align closely with international classifications enabling comparability with international statistics. A wide variety of organisations (government, private sector, educational institutions etc.) use the ABS classifications for a variety of purposes including the analysis of data and running their own surveys and censuses. This enables them to compare their data with data from the ABS and from other organisations which use the same standard classifications.

Constant price estimates

Constant price estimates provide a convenient way of measuring *real* change in various economic statistics, that is, the growth after adjusting values to remove the effects of price changes.

Many economic statistics, such as gross domestic product, relate to a wide range of goods and services. Our difficulty is how to aggregate different units of measurement, e.g. the number of cars produced with tonnes of steel produced. If we use a common unit of measurement, i.e. money values (or dollars), we can express transactions for a range of goods and services as a single aggregate.

However, change in money values from one period to another is generally a combination of change in price and a change in quantity. In most cases, we are interested in changes in the physical quantities underlying the dollar values, e.g. the change in the number of cars produced. As a result, estimates are adjusted to remove the direct effects of price changes. Such estimates are said to be *at constant prices* (or in real terms).

The constant price value of a transaction may be thought of as being the product of a price and a quantity. The value of a transaction at constant prices can be derived by substituting, for each current price, the corresponding price in the chosen base year.

It is not possible to derive constant price estimates for items such as interest rates or profits, that do not have price and quantity components. Nevertheless, such things can be expressed in real terms by using a more common method to derive constant price estimates.

This method is to divide the current price values by a price index such as the CPI or the implicit price deflator of GDP. The underlying assumption is that these price indexes are representative of price change of the goods and services that could be purchased with the money earned from profits, interest, etc. This method is called price deflation.

Base year selection

Most developed countries have chosen to rebase their constant price estimates either every 5 or 10 years. The ABS has chosen to rebase its estimates every 5 years. Constant price national accounts estimates will be rebased from average 1984–85 prices to average 1989–90 prices. Revised statistics are available from regular ABS publications and will be included in the next issue of this publication.

Indexes

An index number measures the value of a variable in relation to its value at a base period. The essential idea of index numbers is to give a picture of changes in a variable much like that drawn by saying 'the price of petrol rose 5 per cent from June 1992 to December 1992'. Index numbers measure change without giving the actual numerical value of the variable.

$$\text{The index number} = \frac{\text{current value}}{\text{base value}} \times 100$$

Because indexes summarise change, they are useful in economic analysis.

Movements in index numbers from one period to another can be expressed either as percentage changes or as changes in index points. It is important not to confuse the two methods because unless the comparison is with the base period, the two yield different results.

Seasonal factors

Some data are influenced by the nature of the period to which they relate. For example, sales of sunblock are higher for January than for July. Normal seasonal influences on data are those effects that recur regularly one or more times a year. Data that are seasonal may reflect the influence of the seasons themselves (such as farm production) or social convention (such as the incidence of holidays) or economic factors (e.g. timing of tax payments and financial year timing). Some data reflect differences in the composition of the months or quarters in terms of the number of trading days in the period or accounting practices used.

This feature of the data can make interpreting monthly, quarterly and yearly changes difficult and so the ABS uses a special statistical tool called *seasonal adjustment* to standardise the data. Seasonally adjusted data has had all the calendar-related influences removed.

Seasonally adjusted data still contains the effects of irregular influences on the data. For example, sales of beer may have been affected by some

large, one-off event such as a strike in several large breweries. Seasonal analysis does not remove such effects but the ABS is able to significantly dampen such irregular influences in seasonally adjusted series by producing a *smoothed seasonally adjusted* or *trend* estimate.

Trend estimates

The smoothing or trending procedure used by the ABS is based on a set of moving averages known as Henderson filters. These moving averages dampen the irregularity of data without distorting the timing, level or shape of turning points i.e. peaks and troughs. Trend estimates provide a simple yet very effective measure of the underlying growth or decline of a time series. They also provide a much wider basis for analysis than the more erratic seasonally adjusted or original data.

National accounts

With separate indicators, particular aspects of economic activity can be monitored. Another important use of this information is as the building blocks of a set of accounts for Australia, called the national accounts. Just as a set of accounts for a business consolidate a lot of information about the business and present it in a set format, national accounts consolidate a range of statistics, from those involving individuals to those involving the whole nation, into a consistent format which describes the overall economic position of the nation.

The concept of national accounting is relatively new, with welfare economists led by Pigou in the 1920s producing the first effective measurement of national income. A fundamental re-direction of emphasis in economic analysis and policy occurred after the acceptance and adoption of principles set down in John Maynard Keynes' 1936 publication *The General Theory of Employment, Interest and Money*.

As a result, national accounting developed as an integral part of economic analysis and policy advising. Government interest focused on production and the allocation of resources to competing uses. Macroeconomic policy, concerned with the maintenance of income, price and employment stability, was dependent for much of its effectiveness on timely and accurate information on the components of domestic production. To provide conceptually consistent information and to illustrate the relationships between the components, estimates were gathered into a system of national accounts.

Australia's National Accounts are compiled in a manner which closely accords with the recommendations of the United Nations *A System of National Accounts* (SNA), which was published in 1968. Further work on the development of national accounting standards to reflect changing economic and policy requirements since 1968 has culminated in the endorsement of a Draft Revised SNA by the UN Statistical Commission in February 1993. The revised SNA is expected to provide a framework for national account statistics into the 21st century.

At the summary level, the national accounts are designed to reflect the economic flows of the Keynesian system: production, consumption, investment and saving. The relationship which Keynes elaborated (that production is equal to the value of incomes received and in turn equal to the value of final expenditures) is summarised in the equation:

$$Y = C + I + X - M$$

In this equation, Y represents income, C represents consumption, I represents investment, X is exports, and M is imports. The relationship between Keynes' work and national accounts becomes apparent when the domestic production account from Australia's national accounts is examined.

On the **income side** of the account are the incomes accruing to the factors of production: wages, salaries and supplements earned by labour, operating surplus (profits) earned by capital and net indirect taxes accruing to government. On the **expenditure side** of the account are final consumption expenditure, investment (represented by gross fixed capital expenditure and increases in stocks), plus the value of Australia's exports (which are part of Australia's total production) minus the value of imports (which represent part of the production of other nations).

The various terms from the equation $Y = C + I + X - M$ are grouped into four major accounts in Australia's national accounts. The *domestic production account* summarises domestic production, income and expenditure. Consumption is examined in more detail in the *national income and outlay account*, saving and investment in the *national capital account* and exports and imports in the *overseas transactions account*.

National accounts estimates attempt to account for every monetary transaction of every economic agent in the economy, as well as imputing a value for a range of transactions that do not involve the exchange of money (for example, when producers consume their own products). The quality of national accounts statistics depends to a large degree on the quality of the original records maintained by businesses, governments and other institutions from which data are obtained.

INTERPRETING STATISTICS

Definitions

It is important that your understanding of relevant terms correspond to the ABS definitions. This ensures that interpretation of terms is uniform and the information is used in the right context. For example, how do you define "unemployment"? Compare your definition with the ABS definition. Most ABS publications contain definitions of the information they include.

Footnotes

Footnotes are used to add comments and/or explanations to the tables or graphs. Footnotes are indicated by the inclusion of a letter in brackets e.g. (a), (b), (c), etc. beside the figure or heading which requires explanation. This letter and its footnote are presented under the table or chart.

The position of the footnote reference is important in the table or graph. If the footnote reference is in the title of the table or graph, then the message in the footnote relates to the whole table or graph. If it appears next to a column heading, then the message in the footnote applies to the data within that column. When analysing statistics, it is important to give attention to the footnotes as they often point out limitations in the data which could significantly affect interpretation.

Explanatory notes

Explanatory notes are designed to assist the user in understanding the data in the publication. They provide information on what data was collected and how and are useful in highlighting the limitations of the data. For example, explanatory notes generally include descriptions of the methodology and scope used to collect the data, data definitions, reliability of estimates, seasonal adjustment and comparability with other data.

Averages

An average (arithmetic mean) provides a useful summary measure of the contents of a set of data. However, averages can give a very deceptive picture of the meaning of statistics if they are misunderstood or misused. The average is affected by extremes in data (highest and lowest values) and unequal distributions. It may be beneficial in analysis to also examine the mode (most frequently occurring value) and the median (the value in the middle of an ordered data set) as a guide to the characteristics of the data.

Composition of totals

Analysis of totals will give you an idea of overall trends in time series data. To gain a more complete understanding of the data, however, an analysis of the components making up the totals is necessary. For example, there were more women than men in Australia at the 1986 census. However, further analysis shows men outnumbered women in each age group up to the 50–59 years age group, but women outnumbered men greatly in the older age groups.

Graphs

Graphs are an excellent way of presenting data. They enable the user to get a feel for the data quicker than using tables or from text.

Graphs, however, can very easily be misleading and care should be taken in interpretation. Care must be taken to understand what the title and axis headings mean and what data series are actually represented in the graph. Attention must be paid to the units (e.g. millions of dollars, persons) and the scales used.

Surveys and censuses

Ideally, if we want to find out something about a group of people or businesses, we would approach every person or business in the group (called the population). This is called a census. The best known census is the Census of Population and Housing, which collects information from every household in Australia. However, by sticking to certain rules, a reliable picture of a population can be drawn from a selection or

a sample of that population. The key lies in selecting a sample that is representative of the whole population.

An advantage of sample surveys over censuses is that they are cheaper and are easier to run. However, one main disadvantage is that the results contain *sampling error*, which is the difference in the results obtained from using a sample of the population and a census. In some instances this error can be quite large. Where information is being analysed from sample surveys, the size of this error should be taken into account when assessing the credibility of results. Sample survey and census results can also contain *non-sampling error*, which is error resulting from collection and processing errors e.g. respondents being unable to accurately recall information or mistakes made in recording or coding.

STEPS IN ANALYSIS

Although there are no hard and fast rules to the correct approach, the following steps may give you a starting point for analysing time series data.

(a) Determine what data are available and relevant to your topic. The ABS Catalogue of Publications and Products (1101.0) is a good place to start.

(b) Look at the layout of the table in order to understand how the data are arranged. Check the row and column names to get a clear idea of the variables being displayed.

(c) Scan the totals in the tables to get an overall idea of the trends in the data. A graph is often the most appropriate tool for this analysis. If no graph is presented, consider graphing the data yourself to get a clear picture.

(d) If the data are available by different frequencies (e.g. annually, monthly), decide which of the available frequencies is most appropriate for your purpose. Annual data may be appropriate for examining data over a long time; quarterly or monthly data may provide a better picture of more recent developments.

(e) Make sure you have a clear idea of the questions for which you seek answers in the data. For example:

- are the values of the variable rising or falling over time?
- when was the last peak (high point) or trough (low point)?
- has the rate of change risen or fallen over time?
- have the shares of components in the total changed over time?

It is important to conduct your analysis one logical step at a time. Do not try to take all the information in at once and try not to get side-tracked with minor issues as you do your analysis.

Further Reading

- ☐ *An Introduction to Sample Surveys — A User's Guide* (1202.2)
Contains a basic guide to the use of sample surveys. Topics covered include survey objectives, data collection methods, questionnaire and sample design, sources of error, survey testing, data collection and processing and analysis and presentation of results.
- ☐ *Concepts and Methods of Seasonal Analysis* (1315.0)
Provides coverage of the theory underlying seasonal adjustment and the methods used by the ABS. Includes guidance for the interpretation of seasonally adjusted data.
- ☐ *Surviving Statistics — A User's Guide to the Basics* (1332.0)
A comprehensive basic guide to understanding and using statistics.
- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
Contains the history, conceptual framework and structure of the national accounts, including an explanation of constant price estimates.



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